Real-Time DVR H.264

4/8/16 ch DVR

Future of Digital Video Recording at Hand

PRAVIS

User's Manual ver. 1.00

Safety Information

The safety information is provided for the wellness of the equipment and for the safety of the operator.
Please review and observe all instructions and warnings in this manual.

Note : *Keep this manual handy every time you operate this equipment. Also, check with your dealer for further assistance and for the latest revision of this manual. Your dealer might provide you with a digital version of this manual. We also ask to keep the original box and packing materials in case of return and for long-term storage of the DVR unit.*

Preparations before installation

To protect your DVR from damage and to optimize performance, be sure to keep the DVR away from dust, humidity, and area with high voltage equipment such as refrigerator.

Do not install or place equipment in areas where the air vents can be obstructed, such as in tight enclosures or small utility closet. Keeping the unit in a temperature-controlled room with ample regulated power is highly recommended. Do not overload the wall outlet, as this can result in the risk of fire or electric shock.

Uninterruptible power devices such as UPS power surge protectors are recommended, and the DVR units must at least be connected with UL, CUL, or CSA approved power surge protector. Avoid direct sun light and avoid heat.

FCC Information

This equipment has been tested and found to comply with the limits of Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and radiates radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment under FCC rules.

UL Information

- for pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible

- if the battery is placed elsewhere in the equipment, there shall be a marking close to the battery or statement in the servicing instructions.

CAUTION RISK OF EXPLOSION IF AN INCORRECT TYPE REPLACES BATTERY.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTION.
THIS EQUIPMENT IS FOR INDOOR USE, AND ALL THE COMMUNICATION WIRING IS LIMITED TO INSIDE OF THE BUILDING, OR ANY SIMILAR WORD.

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Chapter 1

DVR USER MANUAL

1 GETTING STARTED

1.1 Checking Supplied Items

Make sure that you have the following items supplied with your DVR. If any of these items are missing or damaged, notify your vendor immediately. Keep the packing utilities for moving or storage purposes afterwards.

Items	Photo	Quantity
User Manual (DVR & Software) Quick Start Guide		1 Set 1 Set
CD (Manual & Software) and Rubber Mount		1 Set 1 Set (4 Pieces)
12V DC Adaptor and Power Cable		1 Set
IR Remote Controller		1 Set
USB Mouse		1 Set

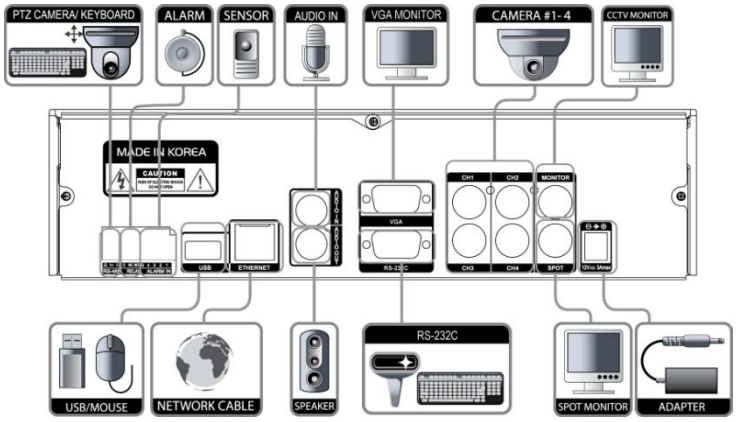
1.2 Connecting Peripheral Device

This section describes how to connect peripheral devices efficiently to the DVR.

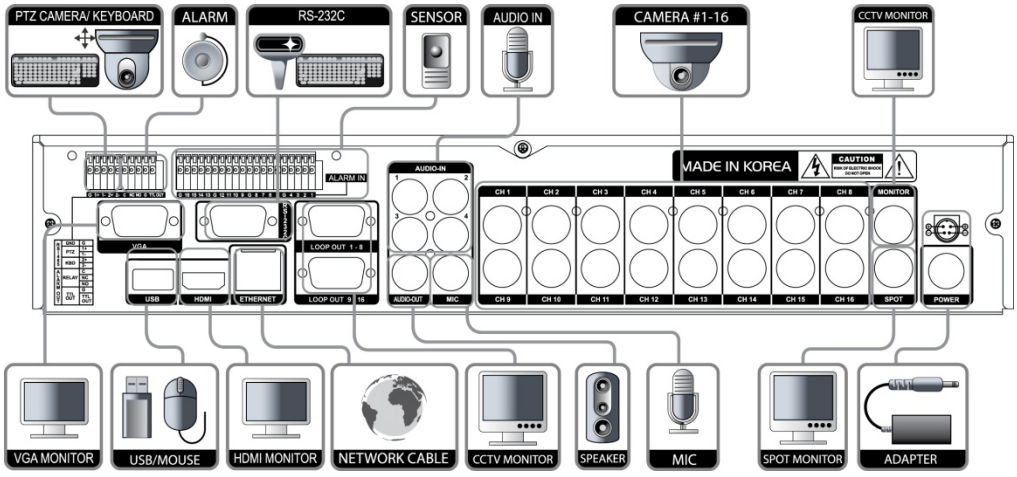
Install the DVR on flat surface. If required, attach a rubber mount for installation. If a 19-inch rack is used with 1.5U Height case, it is recommend to install the system on a shelf and use 2.5~3U (1U=1.75 inch or 4.45 cm) space for proper ventilation.

NOTE Install the system in a location with good ventilation to prevent overheating.

[4CH Compact Case (W)270x(H)71x(D)215mm]



[4/8/16CH with DVD±RW (W)360x(H)66x(D)380mm]



WARNING ! ※When connecting power cord to the system, it is strongly recommended first to plug the power cord to the system and then plug the other side of power cord into the wall AC socket.

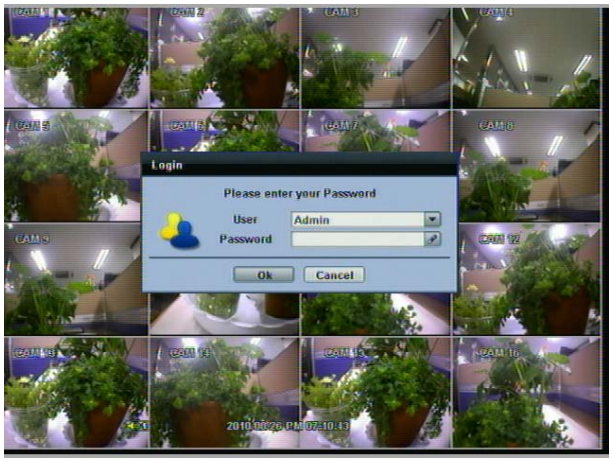
1.3 System Startup and Shutdown

1.3.1 System Startup

After connecting peripheral devices such as cameras, monitors, and a mouse to the DVR, power up the DVR by connecting DC12V 6.67A adaptor to the power jack on the rear panel. The boot log will display as shown below. Please wait until the boot process completes.

Login with 'User Name' at the login screen, which will appear as shown below.

There is only one Administrator Account configurable in the DVR system. It is assigned with an unchangeable User ID marked as 'admin'. The default password is empty (No Password). Administrator account has full access to the DVR and its configurable parameters. The Administrator Account also has the ability to create new users and to assign rights to the new user accounts. Those new users created by 'admin' account can also login with a specific password set by 'admin' account.



NOTE	Do not forget the administrator's password that was set for the first time. In case the password is lost, contact your vendor.

NOTE	The mouse is included. In case you need to replace it, it is highly recommended to choose well-known major brands such as DELL, MICROSOFT, LOGITECH, or SAMSUNG.

1.3.2 `System Shutdown and change password

Unplug the power cable from the back of the unit to power off the DVR.

The default password for ‘admin’ account is none. Therefore, just click ‘Enter’ button on the dial pad. If you changed the password for ‘admin’ account, please type in the changed password to login.

NOTE User can type in the password using the virtual keyboard or the numeric buttons on the IR remote controller.

2 EXPLANATION FOR EACH FUNCTION

2.1 Front Panel

[4CH Compact Case (W)270x(H)71x(D)215mm]

No.	Buttons	Functions
1	Menu Exit	Open system menu / Return to previous mode
2	Fast Rewind Button	Forward Playback : Decrease the speed / Reverse Playback : Increase the speed
3	Forward & Backward Play / Pause Button	Forward play & Backward Play (Long Press) / Pause (Short Press)
4	Fast Forward Button	Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
5	Search Instant Play (Press and hold)	Go to search mode / Used to initiate Instant Reverse Playback
6	Book-Mark Call Monitor (Press and hold)	Book-Mark / Used to display full screen video of a selected spot out channel
7	PTZ I-backup (Press and hold)	Bring up PTZ Camera control / Used to initiate instant back up
8	Mode Freeze(Press and hold)	Change screen mode / Used to initiate Freeze function
9	USB Port	USB port (Ver. 2.0) for mouse operation and backup device or F/W update
10	LED Indicator	Indicates system status Power, Record, HDD and Remote Control
11	Instant Record	Emergency Recording
12	Enter Button	Select value or setting
13	Direction Button	Move to the direction that user wants to select

[4/8/16CH with DVD±RW (W)360x(H)66x(D)380mm]

No.	Buttons	Functions
1	Menu Exit	Open system menu / Return to previous mode
2	Fast Rewind Button	Forward Playback : Decrease the speed / Reverse Playback : Increase the speed
3	Forward & Backward Play / Pause Button	Forward play & Backward Play (Long Press) / Pause (Short Press)
4	Fast Forward Button	Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
5	Search Instant Play (Press and hold)	Go to search mode / Used to initiate Instant Reverse Playback
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10	LED Indicator	Indicates system status Power, Record, HDD and Remote Control
11	Instant Record	Emergency Recording
12	Enter Button	Select value or setting
13	Direction Button	Move to the direction that user wants to select
14	DVD±RW	DVD±RW : Open to use a pre-installed DVD±RW(Option)

NOTE **I- Backup (Instant Backup)**

In playback mode, the user can press the “I-backup” button on the frontal keypad to configure both “start” and “End” time. Once the “Start” and “End” time is set, click the “Start” button to start the backup process.

2.1.1 DIRECTION Button

1) Live Display & Playback Mode

User can change channel number by using Left & Right arrow button.

User can change display mode by using Up & Down arrow button.

2) Menu Mode (when system menu displays)

To move to desired menu position

3) Pan & Tilt Mode (once PTZ Button is pressed)

To move connected camera to desired direction

4) Zoom & Focus Mode (when PTZ Button is pressed again)

User can control Zoom-In & Out by using Up & Down arrow button.

User can control Focus-In & Out by using Left & Right arrow button.

5) CALL Monitor Mode (once Call Monitor is pressed)

User can bring up the full screen out of spot out channels by using Up & Down arrow button.

2.1.2 ENTER Button

To select value or setting

2.1.3 EXIT Button

To exit the menu setup or return to previous mode

2.1.4 MENU Button

To set the system configuration according to user requirement

2.1.5 MODE (Press once) / FREEZE (Press and hold) Button

MODE (Press once): to select the Screen display mode

FREEZE (Press and hold): Screen display will be paused until the Freeze button is pressed again.

2.1.6 PTZ (Press Once) / I-BACK UP (Press and hold) Button

PTZ (Press once): Once pressed, DVR is changed to Pan & Tilt mode. User can control Pan & Tilt operation by using Direction Button. If pressed again, DVR is changed to Zoom & Focus mode. User can control Zoom & Focus operation by using Direction Button.

I-BACK UP (Press and hold): Press and hold to go to instant Back up mode.

2.1.7 INSTANT REC (Press once)

INSTANT REC (Press once): Used for emergency recording mode.

2.1.8 B-MARK (Press once) / CALL MON (Press and hold) button

Book-MARK (Press once): Used for bookmark.

CALL Monitor (Press and hold to enable): Used to display a full screen video of a selected channel out of the assigned spot out channels. During CALL Monitor mode, if you click “CLOSE” button at the bottom of the numeric panel, the spot out display will go back to the previously programmed spot out mode.(CALL Monitor)

2.1.9 SEARCH (Press once) / INSTANT PLAY (Press and hold)

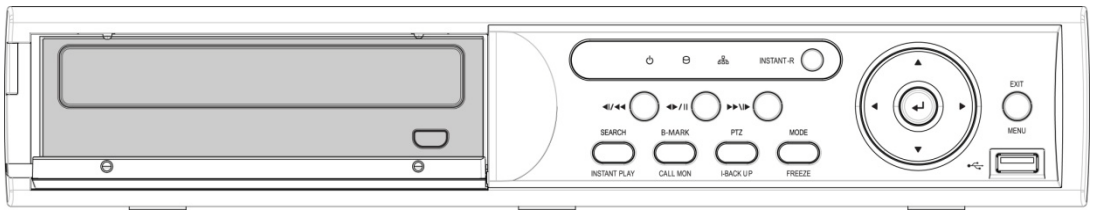
SEARCH (Press once): To search the recorded Video by time and date

INSTANT PLAY (Press and hold): Used to initiate Instant Reverse Playback. Refer to “Operation > Search recording Image” for detailed image searching method.

2.1.10 IR Sensor Window (Remote Control Receiver)

To receive input signal from the IR remote control

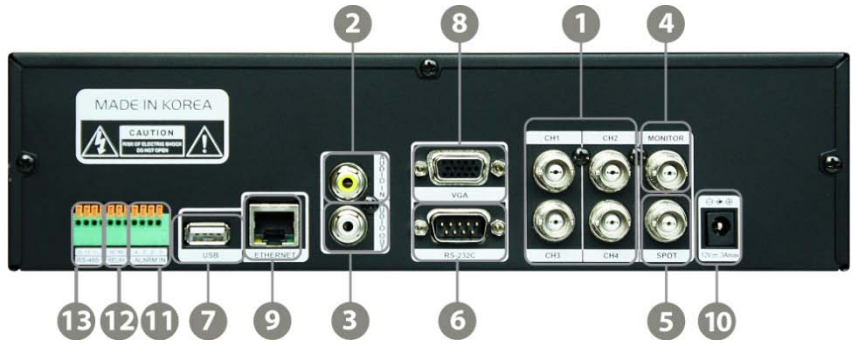
2.1.11 DVD±RW



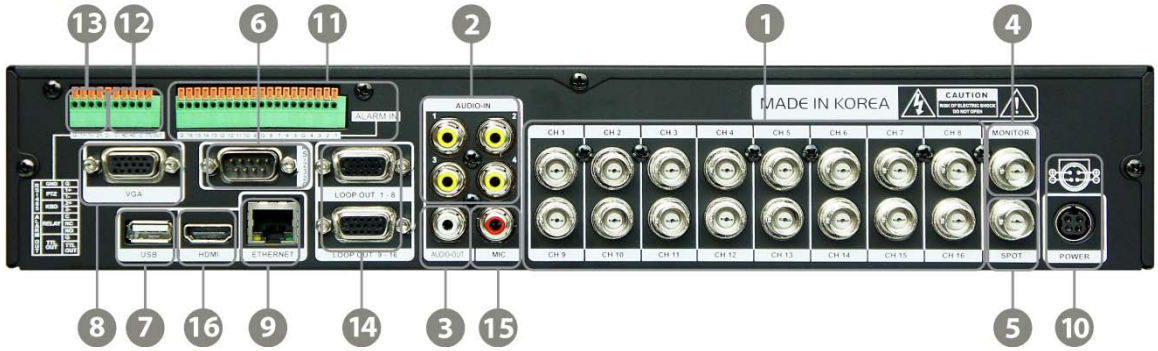
Open to use a pre-installed DVD±RW (Option)

2.2 Rear Panel

[4CH Compact Case (W)270x(H)71x(D)215mm]



[4/8/16CH with DVD±RW (W)360x(H)66x(D)380mm]



4 BNC ports available on 4CH model and 8 BNC ports available on 8CH model

No.	Name	Description
1	Video-In	Camera (Supports NTSC/PAL)
2	Audio-In	Audio input device (with amplifier)
3	Audio-Out	Audio output device (with amplifier)
4	Video-Out	Composite Monitor
5	Spot-Out	Composite Spot Monitor
6	RS-232 Port	RS-232 input device
7	USB Port	USB port (Ver 2.0) for mouse operation and backup Device or firmware update
8	VGA Port	VGA Monitor
9	LAN Port	10/100 Ethernet connection terminal
10	Power Input	Power supply connection (Default : 12 V, 3.33A/6.67A)
11	Sensor Input	Sensor input
12	Alarm Output	Alarm output
13	RS-485 Port	PTZ camera or external keyboard
14	Loop Out	Loop Out Port
15	MIC-In	MIC input device
16	HDMI Port	HDMI Port Out

NOTE Carefully check whether the specification of the peripheral devices matches the DVR's specification.

2.2.1 Video-In

To connect the camera input to the corresponding channel marked on rear panel.

NOTE Camera Input voltage level is 1Vp-p±10%.

2.2.2 Audio-In

To connect audio input

2.2.3 Audio-Out

To connect audio output

NOTE Use of audio output with an amplifier is recommended

2.2.4 Video-Out

To connect composite monitor

2.2.5 Spot-Out

The spot monitor can be used to display input images in automatic switching mode.

2.2.6 VGA-Out

To connect a VGA Monitor

2.2.7 HDMI-Out

To connect a HDMI Port Monitor

2.2.8 USB Port (Version 2.0)

1) To backup recorded Video by using USB storage device (USB Memory Stick or USB HDD)

2) Firmware upgrade

3) To connect a mouse for system navigation

2.2.9 LAN Port

To connect RJ-45 jack of LAN cable

Consult network administrator or the internet service provider for proper network setting.

2.2.10 NTSC / PAL Selection

NTSC/ PAL is automatically selected when the system boots up.

*Please connect cameras to DVR prior to booting up.

2.2.11 RS-485 Terminal Block

Connect RS-485 cable for the control of PTZ camera or external keyboard controller

2.2.12 Sensor Terminal Block

Connect sensors

2.2.13 Alarm Terminal Block

Connect various alarm devices controlled by relay output

NOTE Support both N/O (Normal Open) and N/C (Normal Close) type of sensors. If connected sensor is not functioning, ensure wiring is correct. The connection method may differ according to the type of P/T/Z controller. Enquire to your vendor for guidance.

2.2.14 Power Input

Before connecting the power cord to the system, check if the power is in accordance with the system specification.

2.3 IR Remote Controller

In order to use IR Remote Controller, the ID of the IR Remote Controller must be same as the ID of the DVR.

(Default ID # for DVR and IR Remote Controller is “1”.)

If you have more than two DVRs, you are able to control them individually with just one remote controller by setting up ‘Remote ID’. (The Remote ID is adjustable from ‘1’ up to ‘8’.)

The function buttons of the IR Remote Controller are as below.

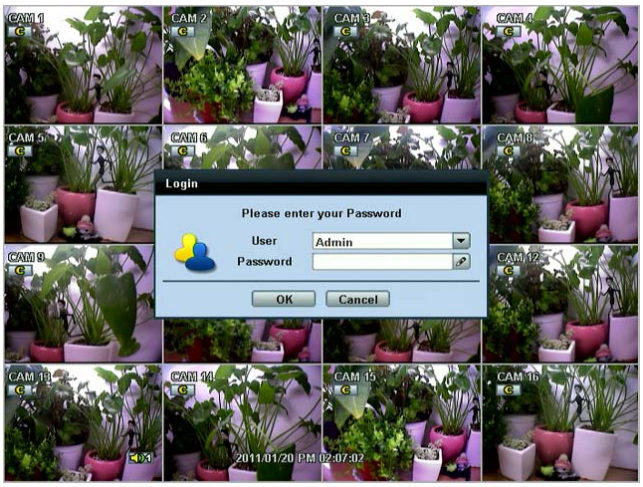
No.	Functions
1	Instant (Emergency) Recording Button
2	Numeric Button
3	Auto-Sequence Button on Live Display Mode
4	Freeze Button
5	Call Monitor Button
6	Channel Selection Button
7	Instant (Emergency) Playback Button
8	Search Button
9	OK (Select) Button
10	Audio Mute Button
11	Playback Button on Search Mode (Fast Backward/Playback/Stop/Fast Forward)
12	Exit Button
13	Display Mode Button
14	Zoom Button
15	PIP Mode Button
16	Bookmark Button
17	Zoom In & Out Button / Volume(+ & -) Button
18	Backup Button
19	PTZ Button
20	Direction Button (Up/Down/Right/Left)
21	Menu Button
22	ID Select Button (DVR1 ~ DVR8)

3 OPERATION

3.1 User Log-in

Check the power connection. The system can be used after power-on.

The DVR has various setting categories. The administrator can set the system password and <User> to prevent unauthorized changes to setting values and alteration of recorded file.



Enter the <Admin> or <User> password which had been set by using the virtual keyboard.

NOTE 1) <LOGIN> window will be permanently displayed in monitor as above picture until user logs in with the right ID and password.
2) If it is set as Auto Log-In, DVR does not require LOG-IN. (Please refer to 4.1.2 User.)

3.2 Live Display Mode

3.2.1 Channel Selection

Real-time live image can be seen by easy button operation after power-on.

The images can be seen on real-time by 1, 4, 9, 16 and PIP screen. Whenever the up/down arrow button on the front panel or IR remote controller is pressed, the screen will be sequentially changed.

[1 Ch]

[4 Ch]

[9 Ch]

[16 Ch]

[PIP Mode]

To select channel by mouse, click the left mouse button on the desired channel. To return to previous screen mode, click the left mouse button again.

NOTE To properly select a channel using the mouse, the user is required to perform a slow and clear click of the left mouse button.

3.2.2 Icons

The live mode display's icons or messages will be indicated on the screen to indicate the system mode or status.

Below are the icon categories that are indicated on the monitor.

Icon to be shown at right-upper corner on each channel screen		Icon to be shown at right-bottom corner on full screen.	
C	Continuous Recording	PTZ	PTZ Camera
M	Motion Detection Recording	HDD	No HDD, Smart Alarm & HDD Failure
S	Sensor Activating Recording	E-REC	Using Emergency Recording
C+M	Continuous+ Motion Recording	PTZ	Using PTZ
C+S	Continuous + Sensor Activating Recording	CHECK FAN	Warning for exceeding temperature
M+S	Motion Detection + Sensor Activating Recording	SEQ	Showing sequence mode
C+M+S	Continuous + Motion Recording + Sensor Activating Recording	ZOOM	Showing digital zoom mode
C	Emergency Recording		
	Sensor Activated		
	Motion Detected		
	Audio Channel		

User can place a USB Mouse pointer on the bottom of the monitor during live mode. The menu bar will instantly appear as shown below.

Red Circle icon button means “instant (emergency) recording”, which is useful to urgently start recording. In emergency recording, the system follows the panic record settings. The default settings for panic record is 30(25)FPS @CIF Resolution for all channels. If you want to change the panic record settings for each channel, please go to RECORD → Panic Record.

Joystick icon button means “PTZ” mode, which is useful to instantly switch to PTZ control. In PTZ mode, user can move pan/tilt and zoom-in/out by moving the mouse pointer, like a virtual joystick.

User can click the right-forwarded arrow button to automatically playback the latest video clip.

Circle icon button means the HDD usage percentage by video recording. If it shows 60%, then 60% of HDD space has been used up for recording.

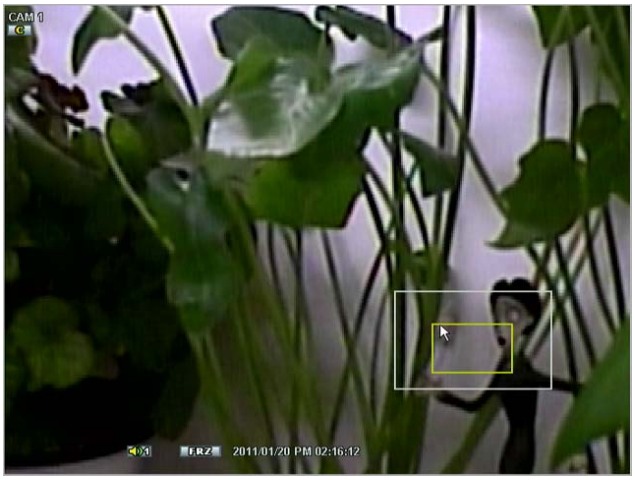
NOTE	If you cannot find any colored-mark in the top right corner of the live screen mode, then it means that the system does not record any image. In this case, you need to check recording schedule or camera of the main setup menu.

3.2.3 Pop-up Menu

User can click the right button of the mouse to pop up sub-menu as shown below.

When “SEQUENCE” is selected, icon is shown on the bottom right corner of the screen, and display screen will be sequentially changed.

When “ZOOM” is selected on full screen mode, digital zoom function is activated, and icon is shown on the bottom right corner of the screen. In zoom pop-up menu, the user can move a yellow box by using the mouse to drag in the desired area of the camera to zoom. In order to go back to live display mode, please click “Zoom” again.



When a camera is disconnected, a warning sound may be generated depending on the system settings.

Admin user can set different level of authorization for each user. If a certain user is not allowed to view a certain live and playback channel, then no image appears on the display screen as shown above.

3.3 PTZ Operation

User can go to PTZ mode by clicking right button of mouse and selecting “PTZ” in the pop-up menu as shown below or by selecting the joystick button in the menu bar located on the bottom of the main screen.

In PTZ mode, user can control PTZ operation with USB mouse.

While pressing the left button of mouse, user can drag the mouse pointer to up/down or left/right to move pan/tilt position of the camera. If user moves the mouse pointer far away from the center position of the main screen, the PTZ camera moves at faster speed. The user can also zoom-in/out by rolling the wheel of mouse up or down.

NOTE Full PTZ functions are available by using USB mouse, IR remote control, or keyboard controller

For focus control in PTZ screen mode, the user can right-click using the mouse to get the pop-up menu as shown below. Default mode is to "ZOOM". The user can select "FOCUS" to switch the wheel function of mouse from zoom-in/out to focus. This will change the default behavior of the mouse wheel.

The user can also select the preset button or exit PTZ screen model.

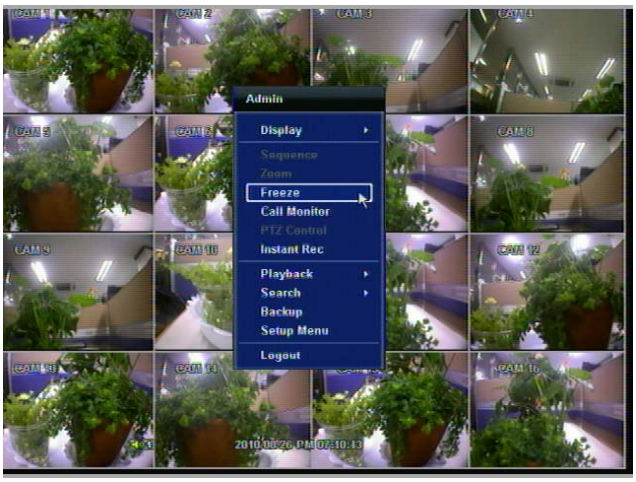
NOTE User will see numeric pad to select "Preset" number. The preset is defined by setting a PTZ protocol in the setting menu. The maximum number of preset is 255, but the max supported by the PTZ may be less

User can automatically switch PTZ camera positions according to the defined of preset setting by using GUARD TOUR function. The connected PTZ camera must support touring functions. "GUARD TOUR" on the pop-up menu can be enabled after the channel that the PTZ camera is connected to is changed to full screen. Please make sure that PTZ camera setting is correct, otherwise, "GUARD TOUR" is shown as disabled.

CAUTION Depending on PTZ camera, some preset positions might be skipped if, for example, the PTZ camera cannot mechanically move or control focus within the interval time required by the DVR. In this case, it is recommended to increase the interval setting to a value that allows for the cameras to finish its Pan & Tilt.

3.4 Freeze Mode

Press FREEZE button on the front panel, or click the right button on the mouse and select the Freeze mode while viewing a live image. In the Freeze mode, the image pauses; the date/ time information does not; and the system clock continues running. Press FREEZE to pause the live view. To resume the live view, press FREEZE again, or click the right button on the mouse and select the FREEZE again.

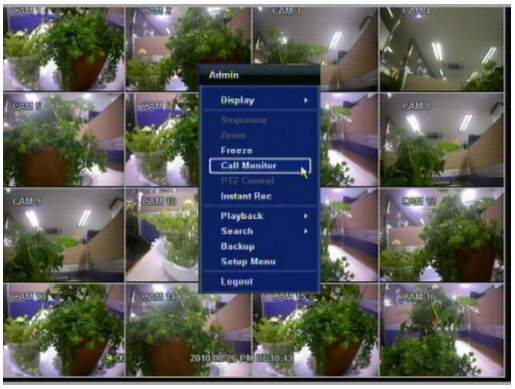


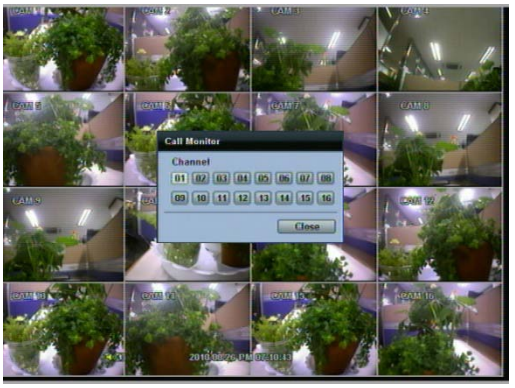
3.5 Call Monitor Operation

Press the CALL MON button on the front panel, or click the right button on the mouse and select the CALL MONITOR in order to enter call monitor control mode. The numeric panel will pop up at the center of the screen.

Click the specific channel button on the numeric panel to display full screen mode out of assigned spot out channels.

▪ Press the close button on the bottom of the numeric panel. It will go back to the previously programmed spot monitor mode.





3.6 Playback of Recorded Video

To play a recorded image, press the Play button from the Front Panel or IR Remote Controller.

It is easy to use the USB mouse to playback recording files. The recorded files can be seen backwards or forwards. Press the rewind and fast-forward buttons, and the playback speed can be controlled in steps of 2, 4, 8, 16, 32 times real time when playing backwards or forwards.

User can click the right-forwarded arrow button to automatically play the latest video clip.

The picture below shows the system playing back a video.

In playback screen, user can make various playback modes, make an instant manual backup (archive), go to calendar search mode, change channel, and change screen modes. By clicking the left mouse button in the colored-time bar, the user can jump to a different time in the recording. In addition, user can move the vertical search bar and release by dragging it back and forth to search the desired time in detail.

3.7 Clean Button during Playback

De-interlacing feature is required for smooth playback of video that is recorded by 720x480/576 (D1) resolution.

In playback mode, user can press "CLEAN" icon at the menu bar located in the bottom of the main screen, or user can click the right button on the mouse and select " De-interlace ". After pressing "CLEAN" icon, a blue circle forms around the icon, which means de-interlacing is activated. After changing to de-interlacing mode, press the pause and step forward icon. User can get better image as shown below. Pressing "CLEAN" icon again, this function will be inactivated.

Click CLEAN icon Enable.

Click CLEAN icon Disable.

The picture comparison below shows the difference between "Interlace" video and a "De-interlace" video clip.

[De-interlace Image]

[Interlace Image]

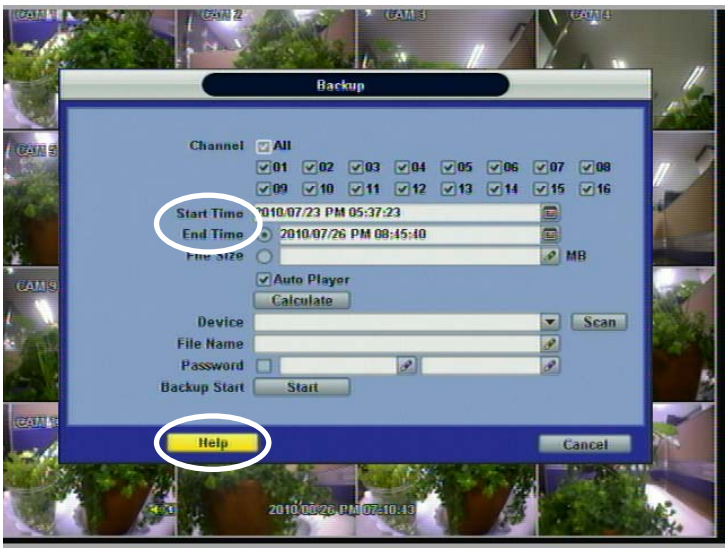
NOTE De-interlacing feature by pressing the "CLEAN" icon can be activated only during a full screen mode.

3.8 Quick Backup during Playback

User can easily archive video while viewing the video playback.

In playback mode, user can press and hold “I.BACKUP” button on the front panel to set archive “start time”. After pressing this “I.BACKUP” button, user will see “INSTANT BACKUP START” on the bottom right of the playback monitor. Once “INSTANT BACKUP START” message is shown, user can keep playing back video until user wants to finish archiving and then press and hold the same “I.BACKUP” button again to set backup “end time”. The backup menu window will pop up, and user can select the backup media, like CD/DVD or USB thumb drive and execute archiving.

Press “I.BACKUP” button to set “start” and “end” time of archive during video playback.



NOTE

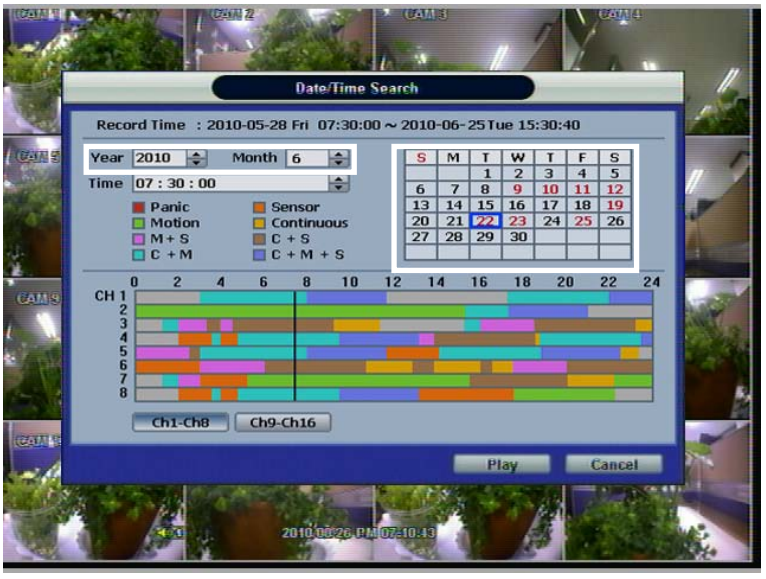
The "HELP" button will help you understand how to setup several important settings, even without the user's manual book. For example, if you need help about how to set "BACKUP", click "HELP" button at the right bottom of the BACKUP menu.

3.9 Search Recording Image

3.9.1 Date/Time Search

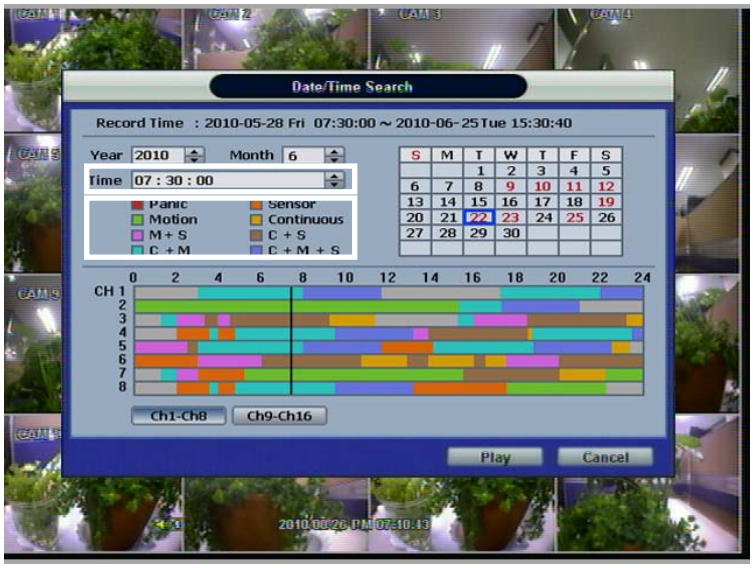
The user can select the date and time to search for a certain file within the recorded video.

In the calendar, dates in RED color means that there is recorded video data. Click a desired date in Red color. Then, the recorded data for the selected date will be shown.



Once the recorded video data of the selected date is shown, user can adjust the vertical search line to the time that user wants to search by dragging a mouse. As the vertical line is moving back and forth, user can see "the Search time" clock is also changing. When user decides the Search time, click Play to see the selected video data.

The colors of the time bar are different, depending on the recording mode.



No color - NONE
"NONE" means no recording. Even though user set recording frames to and on in "Type" in record setup menu, the DVR will not record.

Red color - Panic recording
In continuous recording mode, the system records all the time as set by "CAMERA".

Yellow color - Continuous recording

Green color - Motion-detection recording
In this mode, the system records only when motion is detected
In addition, users can set motion-recording configuration in "MOTION ALARM" at the menu setup

If user sets "MOTION ALARM" to "OFF" on the "DEVICE" and sets "MOTION" to "SCHEDULE", then the system will record when motion is detected but motion alarm is not activated.

Orange color - Sensor-activated recording
In sensor mode, the system will record when a sensor is triggered only during the dwell time as set in "SENSOR" of the "DEVICE" menu.
If user sets "SENSOR" to "OFF" in the "DEVICE" and sets "SENSOR" in "SCHEDULE", then the system will not record anything even though a sensor is triggered.

Sky Blue color - "Continuous" + "Motion detection" recording
The system records all the time by "continuous" as set by the "CAMERA" in the "RECORD" but will switch recording mode to the motion configuration specified by "MOTION ALARM" in the "DEVICE" menu, if motion is detected in the motion area. The system will also send a "motion event" message to the Advanced Client Software over the network.
If user sets "OFF" in "MOTION ALARM" of "DEVICE" and sets "CONT + MOT" in "SCHEDULE", then the system will record with continuous recording mode even though motion is detected in motion area.

Dark orange color - “Continuous” + “Sensor-activated” recording
The system records all the time by “continuous” as set by “CAMERA” in the “RECORD” menu but will switch recording mode to the sensor configuration defined by “SENSOR” in the “DEVICE” menu, if a sensor is triggered during dwell time. The system will also send a “sensor event” message to the Advanced Client Software over the network.
If user sets “OFF” for “SENSOR” in the “DEVICE” menu and sets “CONT + SENS” in “SCHEDULE”, then the system will record with continuous recording mode even though a sensor is triggered.

Pink color - “Motion detection” + “Sensor-activated” recording
The system does not record in normal operation but records only when motion is detected as set by “MOTION” in the “DEVICE” menu and when a sensor is triggered as set by “SENSOR” of “DEVICE”. If user sets “OFF” in both “MOTION” and “SENSOR” in the “DEVICE” menu, then the system will neither record nor notify the Advanced Client Software or Central Management System.

Purple color - “Continuous” + “Motion detection” + “Sensor-activated” recording
The system records all the time by “continuous” as set by the “CAMERA” in the “RECORD” but will switch recording mode to the motion configuration specified by “MOTION ALARM” in the “DEVICE” menu, if motion is detected in the motion area. It will switch recording mode to the sensor configuration defined by “SENSOR” in the “DEVICE” menu, if a sensor is triggered during dwell time.

CAUTION **Dark Blue Color**
The data recorded during DST (Daylight Saving Time) will be indicated in Dark Blue color in the Intelli-Search Bar on playback mode.

3.9.2 Event Log

The Event log search is used to find particular event, quickly and easily.

Click play icon to play back the selected event data.

Users can copy this event list to a USB memory device in text file format.

Once a USB memory stick is inserted into the USB port, the user must press “SCAN” button to detect the USB stick and then press “EXPORT” to copy the log information to the media.

To see a particular event, move the arrow button of the Front Panel or Remote Controller to the desired time range.

The following are the categories indicated on the Event Viewer.

1. Alarm by Sensor
2. Alarm by Motion
3. Alarm by Video Loss
4. Alarm by HDD Full

NOTE If the Alarm does not activate even though the alarm input setting has been made, check the alarm connection port of the DVR rear panel.

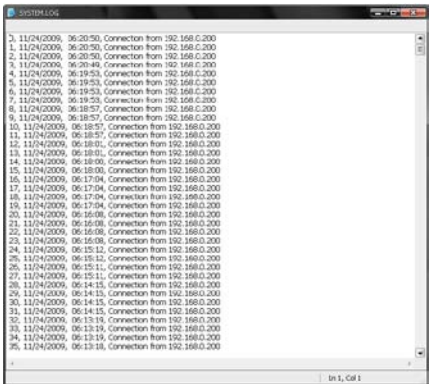
3.9.3 System Log

The system log search is used to find particular system log information, quickly and easily.

User can copy this event list to USB memory device in text file format.

Once export is completed, the user can find a date folder created in USB thumb drive.

There is "system.log" file stored in the date folder.



The following are the categories indicated on the system log viewer.

1. Log by system
2. Log by setup
3. Log by network

NOTE 20 numbers of log record will be shown on one page of the <System Log> and <Event Log> window. User can click the arrow icon to search the log records on another page.

3.9.4 First Data

Go to the first screen of the recorded video. This is the oldest video recorded.

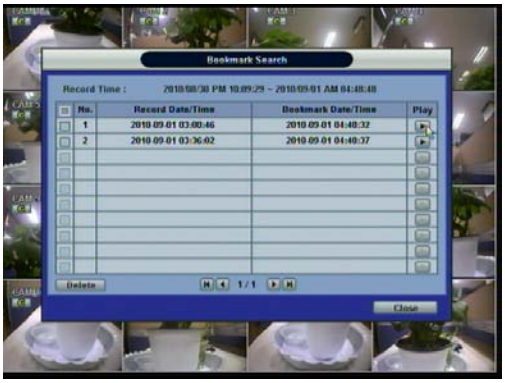
3.9.5 Last Data

Go to the last screen of the recorded video. This is the latest video recorded.

3.9.6 Bookmark

Go to the bookmark list to search the recorded video data in the bookmark list. Users can make their own bookmark list very simply by click

button, during playback. When you do bookmark search, you can easily playback the bookmarked video data by clicking button, right next to each list.



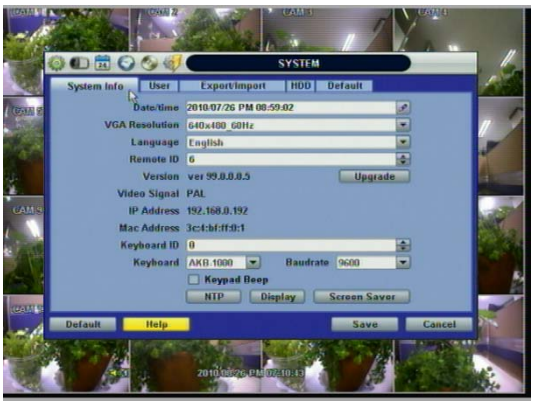
NOTE User can press “SEARCH” button on the front panel to get the SEARCH pop-up menu as shown above. In this menu, full search functionality is controlled using the front panel key buttons.

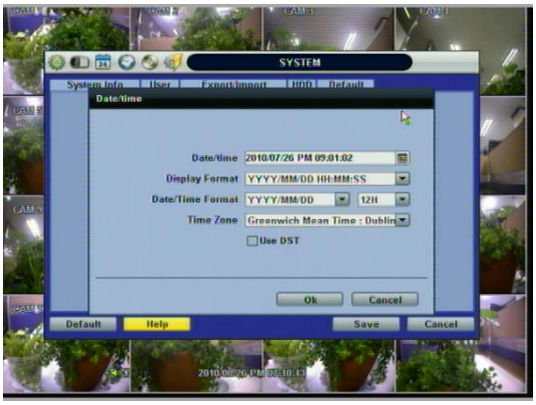
3.10 DST Setting and Screen Saver

DST starts at 2:00 local time on 2nd Sunday of March, and ends at 2:00 DST on 1st Sunday of November.

During DST (Daylight Saving Time) period, DVR time clock has to be adjusted according to regional time zone. That is, the DVR time clock will be shifted by one hour after the DST settings start, and the DVR will restore the time clock back to normal after DST finishes.

To make DST setting on the DVR, go to the menu: SYSTEM > SYSTEM INFO and click "DATE/TIME" to get the DST setting window as shown below. User can setup DST "Begin & End" time after checking "USE DST" box.





Since the clock jumps from 2:00 to 3:00, when you go to search mode, you can clearly see there is no data in all channels for one hour due to DST.

DST ends at 2:00 DST, and the clock jumps backward to 1:00 standard time on 1st Sunday of November.

When DST finishes, there is an hour of overlapped video. The overlap video will be indicated in a blue color in the Intelli-Search Bar during playback mode.

When user click on such overlapped period, a message titled “Recorded video Selection” will pop up. The user can then select whether to play DST data or Non-DST data.

Click OK to play DST image.

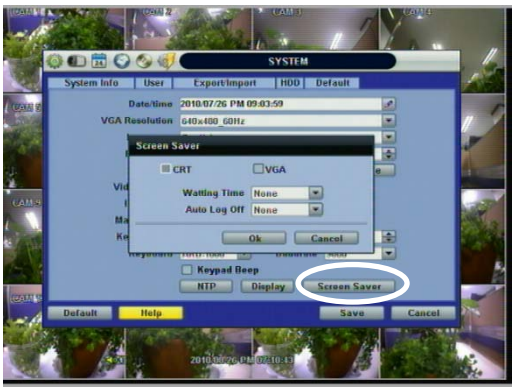
[“DST” image is displayed on screen]

Click CANCEL to play Non-DST image.

[“Non-DST” image is displayed on screen]

To make SCREEN SAVER setting on the DVR, go to the menu setup: SYSTEM > SYSTEM INFO and click “SCREEN SAVER” to get the SCREEN SAVER setting window as shown below. Users can select CRT and/or VGA by checking the boxes. Users can set the WAITING TIME for when the monitor will automatically turn off.

Users can turn on the selected monitor by clicking a mouse, pressing any frontal key buttons, or pressing any buttons on the remote controller.



NOTE WAITING TIME: Users can select the WAITING TIME from NONE, 1,2,3,4,5,6,7,8,9,10,20,30,40,50, and up to 60 MIN. The SCREEN SAVER will not work when either WAITING TIME is set to “NONE” or both SPOT and VGA checkbox are unchecked. SCREEN SAVER may not work, during system upgrade, HDD format, or data backup process. The system continues to record while the monitor is turned off.
When it comes to the “AUTO LOGOFF” setting, please refer to the USER setting.

4 SETTING

General setting structure consists of "System", "Device", "Record", "Network", "Backup," and 'Quick Setup" as shown below.

<SYSTEM>

<DEVICE>

<RECORD>

<NETWORK>

<BACKUP>

<Q-SETUP>

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	EXPORT/IMPORT
	HDD
	FACTORY DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
	PTZ
RECORD	RECORD SETUP
	PANIC RECORD
	SCHEDULE
	HOLIDAY
NETWORK	NETWORK
	DDNS
	NOTIFICATION
BACKUP	MANUAL BACKUP
QUICK SETUP	QUICK SETUP

4.1 System

The system menu button is selected by clicking “TOOL” on the menu bar or clicking the right mouse button.

Users can move mouse pointer from “System” through “Quick Setup” to instantly look around the sub-menus on the menu screen. Using the left mouse button, the user can select a desired category for editing.

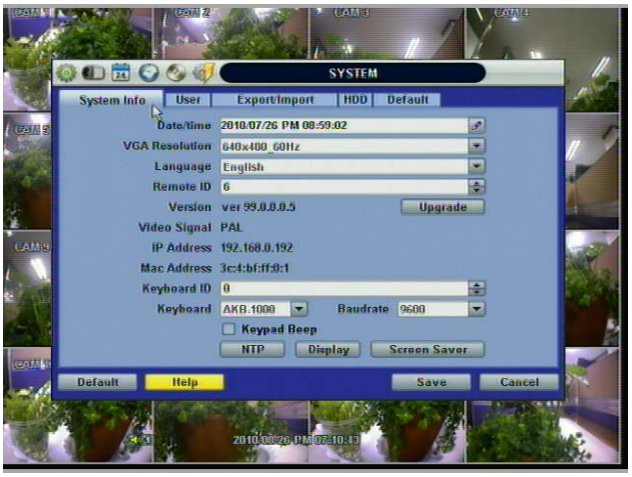
4.1.1 System Info

Use this submenu to check system information status or to change the system-related configuration.

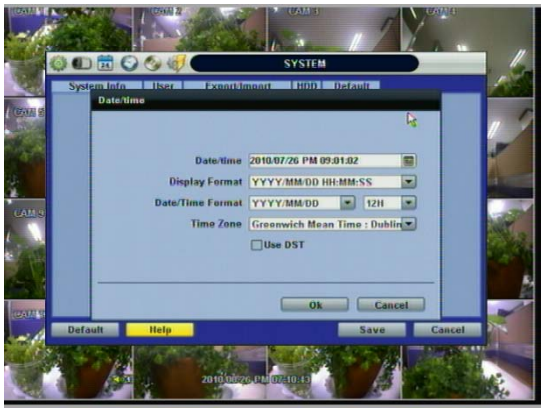
Users can then move to other sub-menu of the System; System Info, User, Export/Import, HDD, and Factory Default by moving mouse pointer or pressing the front arrow buttons.

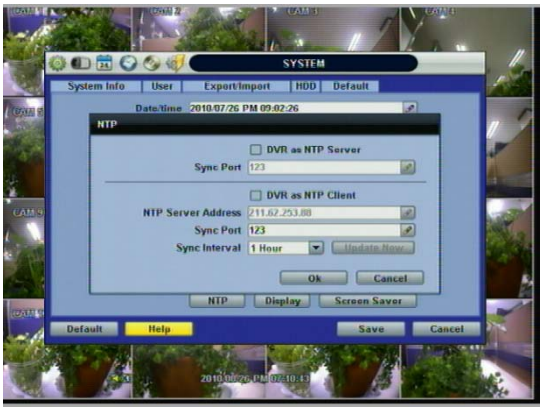
Mac address is a unique network identification number for each system.

NTSC/PAL is convertible by moving the selection switch on the rear panel of the system and rebooting.



In "DATE/TIME SET," user can activate DST (Daylight Saving Time). Select the time synchronization server and other basic settings like time zone/time format.





NOTE There are two types of TIME SYNC MODE.

1) Server Mode

The operating DVR is set as a Time Sync Server, which can synchronize the time clock of another DVR(s) connected over the same network environment.

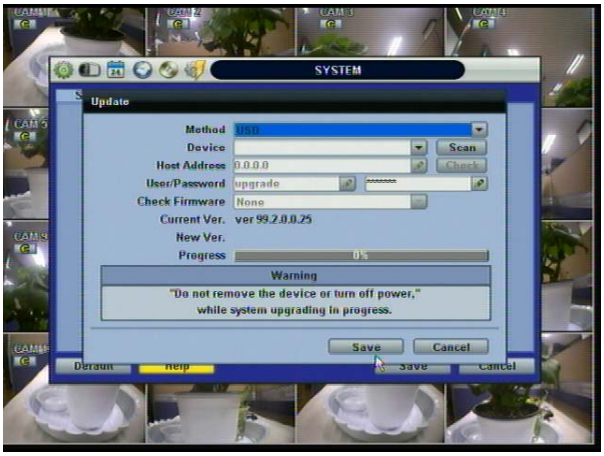
2) Client Mode

The operating DVR is set as one of the client DVR(s). Input the IP No of designated DVR, Advanced Client Software (ACS), or Central Management System (CMS), as a Time Sync Server in "SYNC SERVER"; and then its time clock is synchronized with Time Sync Server by the setup time in "SYNC CYCLE".

Keyboard ID: users must setup Keyboard ID to match the ID setting in keyboard, if user wants to use a keyboard to control the DVR. The user also needs to select the KEYBOARD model and BUAD RATE setting.

Remote ID: users must setup the Remote ID to match the ID setting in the IR remote controller in order for the remote to function.

Upgrade: Users can easily upgrade the system in "Upgrade" menu via DVD/CD/USB/FTP server, upon the selection as shown below:



PROCEDURE

How to upgrade system firmware by using USB memory stick

1) Insert the USB thumb-drive formatted by FAT32 in any USB port of DVR (compatible with USB 2.0)
2) Once the system detects the thumb-drive, user can see its brand or model name in the "DEVICE" field after pressing the "SCAN" button.
3) Click "OK" to confirm.

How to upgrade system firmware by using FTP server

1) Select FTP in the drop-down list and type a given IP address in the Host Address (FTP server IP address) field. Username and password is "none" (Default). *The FTP server address is subject to change without a prior notice.
2) Click 'Check' button then DVR will detect the latest Firmware version from the FTP server. If there is a new firmware, DVR will ask you whether you want to upgrade it or not.
3) Click 'OK' to confirm it and then click 'START' to start upgrading.

CAUTION

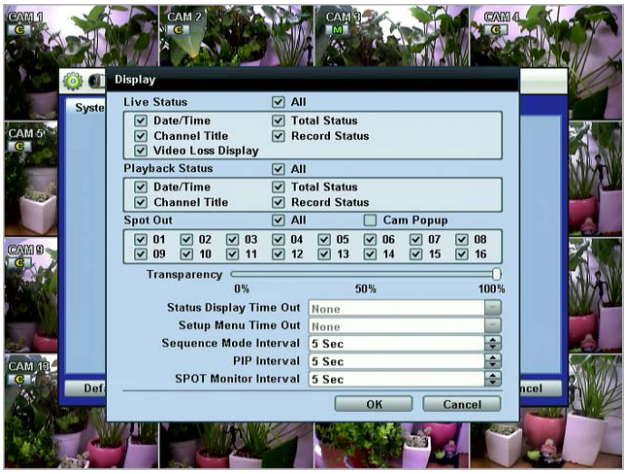
It is recommended to format the HDD after finishing the firmware upgrade because the data recorded by previous firmware may cause malfunction of DVR due to different format.

It is possible to send the system firmware back to factory default. This may be useful if functionality takes a step backwards after a system upgrade. It is highly recommended to check all functions and menus after a firmware upgrade for proper layout and performance.

In "Display Setting", user can set sequence dwell time, spot-out dwell time, spot-out channel, pop-up camera, and OSD as indicated below.

User can set Spot-Monitor output and sequence dwell time in this menu as well as show/hide OSD.

Transparency is the transparency level of the menu screen. 0% means no transparency at all.



You may select On/Off for Live or Playback status display by checking a check box.

NOTE

DVRs support the following video resolutions: 800x600, 1024x768, 1280x1024, 1280x720, and more. User must set the proper resolution according to the monitor resolution.

4.1.2 User

Master user of this system is always Admin with factory default of No password.

Admin must change the password of the DVR for extra security.

Admin can designate a new user with different permission levels by: functions, menu access, and live & playback.

"Function" is to restrict a user to control certain functions, like shutdown, search, PTZ control, backup and playback.

"Menu Access" is to restrict a user to access certain menu settings, like system, device, record, network, backup, and quick setup. "Live & Playback" is to restrict a user to see both live display and a playback video for a certain camera channel.

NOTE Total number of users including administrator is 9 users.

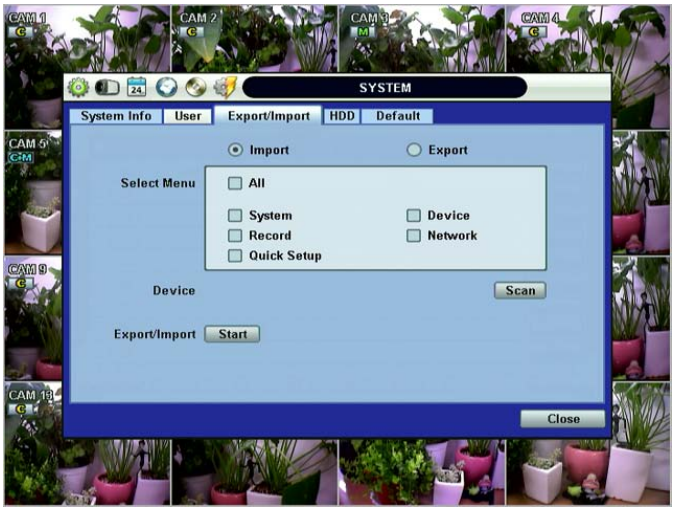
User can change the setting, so the DVR does not require login or lock the DVR control.

If user selects "On Boot", the DVR will not ask for an ID and Password input again even though the system reboots.

On the contrary, if user selects Auto Log-off and sets the time, the DVR will automatically go to the live display mode that occurs after the set time. Then, the DVR will ask for an ID and Password input when user wants to control the DVR.

4.1.3 Export/Import

Users can copy and paste the system configuration values in this menu. “Export” allows the user to copy the settings for this system to USB memory devices. “Import” allows the user to recall the settings saved from other systems using CD/DVD/USB memory devices. During import process, make sure that the firmware version of source DVR is the same as the destination DVR.



4.1.4 HDD

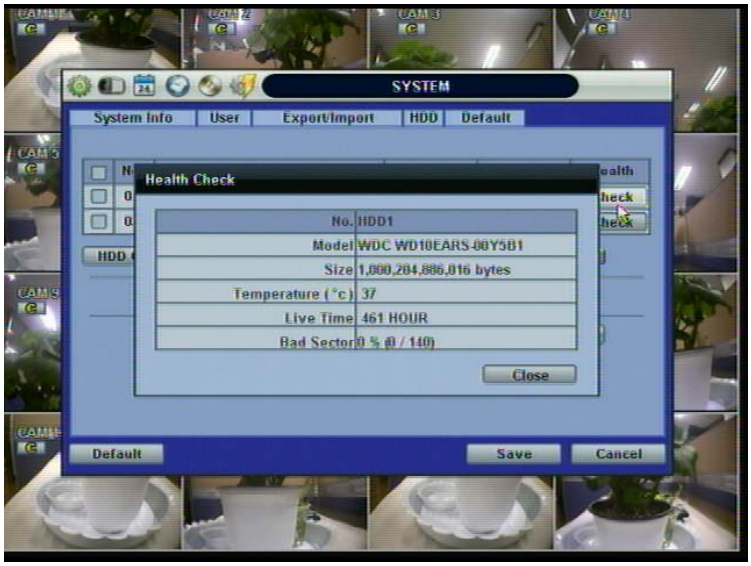
HDD information is displayed at the menu. (SATA HDD is used in this system.)

User can select “Overwrite” or “Rec Stop” when the HDD is full.

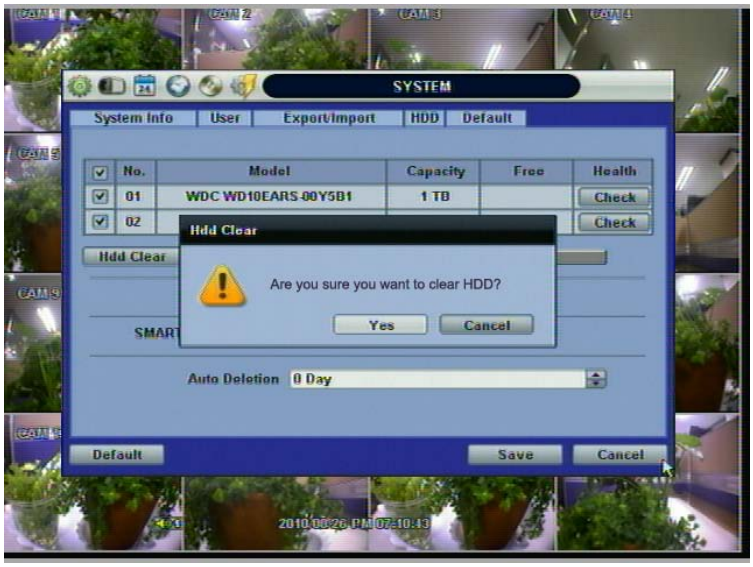
Users also can easily format a new HDD or an existing HDD for each drive. In order to format a HDD, check the checkbox and then click “HDD Clear” button in the HDD menu.

The maximum number of built-in HDD units varies across DVR models.

On the DVR system, DVR Health Check is represented in % sign as shown below. It indicates the lifetime and the temperature in Celcius of the hard disk drive.



If system resources are occupied with task, such as making a network connection or performing video playback during the format process, the format may fail. If the format fails, reboot the system resources and then try to format again.

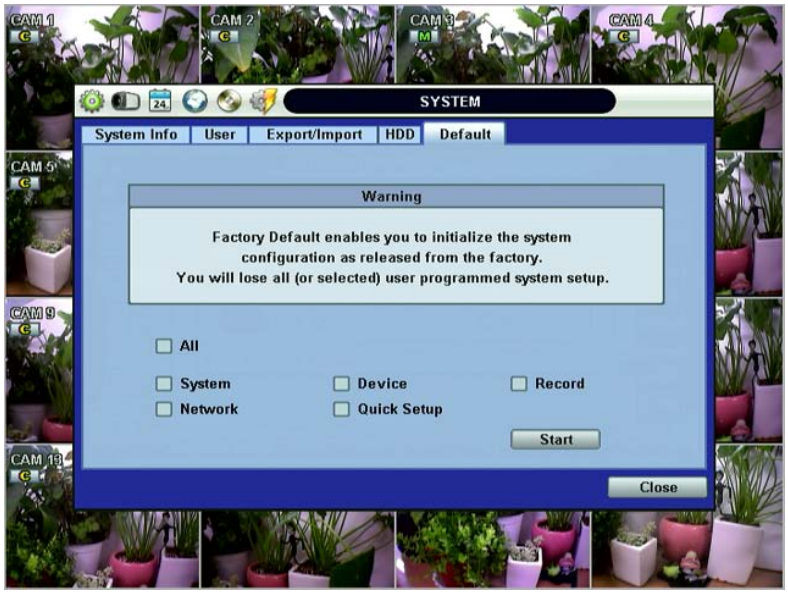


[Format completed]

NOTE 1) Formatting may take around 2 minutes for 250GB, 3 minutes for 500GB, or 4 minutes for 750GB.
2) The system always reserves a maximum of 5GB of space in each built-in HDD to utilize the memory for archiving effectively.

4.1.5 Factory Default

With an authorized password, users can get the system back to factory default configuration.



NOTE Upon clicking “Start” button and entering the admin password, all the configuration values made by the user will be deleted. The system setting will be sent to factory defaults. The recorded video data will not be erased.

4.2 Device

There are six sub menus in the Device menu, such as Camera, Audio, Sensor, Motion Alarm, Extra Alarm, and PTZ.

4.2.1 Camera

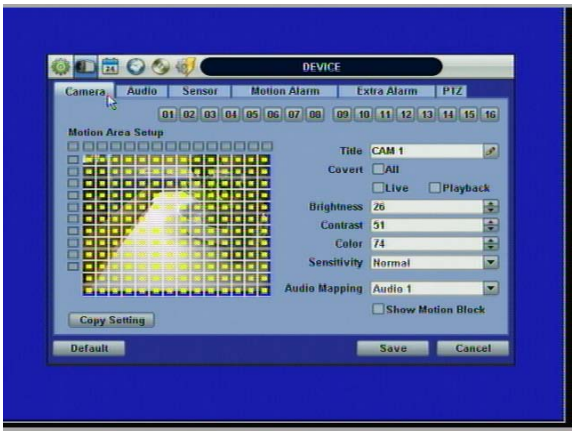
Users can easily move to the "Device" menu by selecting the icon on the top right of the menu screen.

Users can setup camera title, covert, brightness, contrast, motion sensitivity, and audio mapping for each camera.

"Covert," also called "hidden camera" feature, hides camera display and playback as if there were no camera recording.

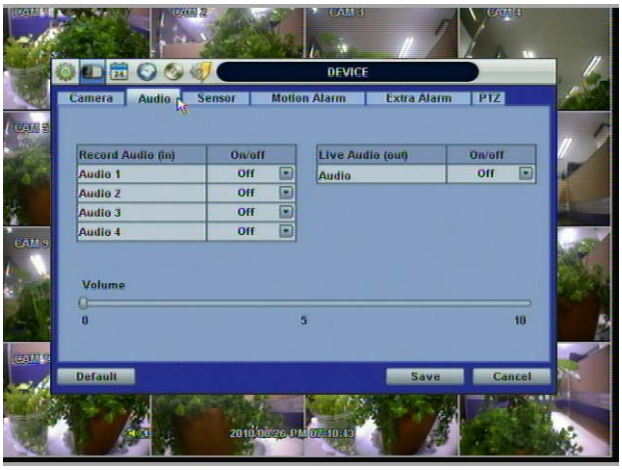
Users can apply this covert function not only to Live view, but also to Playback view.

The default motion area setup is the entire camera area.



4.2.2 Audio

Users can select the audio input and output during live display and match the audio input to a designated channel. (Please refer to Section 4.3.1 Camera Record) There is a volume control panel. User can raise or drop the volume by using the volume control panel.



NOTE User can listen to the audio on both live display and playback mode depending on the setting. In addition, users can listen to the audio for both live display and playback mode through the network using Advanced Client Software (ACS), Central Management System (CMS), and/or Internet Explorer web browser.

4.2.3 Sensor

- **Type**
  Turn on or turn off the sensor.

- **Cam**
  Select the associated camera.

- **Notify**
  Users can select how to be alerted when a sensor is activated or motion is triggered by pressing the “NOTIFY” button. The system can generate a buzzer sound and/or make a pop-up screen for the camera in alarm.

CAUTION Relay contact can handle up to 24V/1A of other devices. If connected to a circuit that is over 24V/1A, the system may experience problems.

- **Preset**
  User can select the camera to move to a preset position, once the sensor is triggered. (User should setup preset position in PTZ menu 4.2.6 in advance)
  In addition, users can set multi-preset with a single PTZ camera. Therefore, users can cover a multi-preset zone with a single PTZ camera.

- **Relay**
  On/Off Relay Output

- **TTL**
  Select the sensor type between N/O (Normal Open) and N/C (Normal Close) for the sensor connected to the alarm input terminal. A circuit of N/O type activates the sensor when the circuit closes. An N/C circuit works in the reverse order.

- **Dwell Time**
  Set the recording period from the start of sensor input activation. During this period, the corresponding camera video will record according to the frame and alarm (relay) output set. The recording stops and alarm output is turned off when the dwell time has elapsed.

- **Copy Setting**
  Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the sensor the user wants to copy from at the "From" field. Choose the parameters such as Type, Cam, Notify, Preset, Relay, and Dwell Time on the check box. Check on the checkbox next to the sensor numbers to apply the copy setting(s) to another channel on the "To" box.

NOTE "Sensor" here means the alarm connected to the DVR, which is triggered by physical sensor input.

NOTE If the sensor does not operate properly check the setting of the sensor type (N/O or N/C).
The alarm might not function if the actual connecting sensor type and the sensor type in the system setting are inconsistent.

NOTE "Camera pop-up" means that multi-screen live video mode will be switched automatically to single channel mode, when an alarm is triggered. This single channel video will be the channel triggered by alarm.

4.2.4 Motion Alarm

Select Motion alarm to record only when motion detection is triggered by DVR S/W upon user's defined motion area.

The system records at the maximum recording speed upon motion detection, if user sets "Intensive" to "on". Video will record for the selected post-alarm dwell time and pre-alarm video will also record for the specified time. An alarm signal is sent via the selected sensor-out channel.

- **COPY SETTINGS**
  Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the camera the user wants to copy from at the "From" field. Choose the parameters such as Use, Notify, Relay, TTL, and Dwell Time on the check box. Check on the checkbox next to the sensor numbers to apply the copy setting(s) to another channel on the "To" box.

NOTE "Motion Alarm" here means alarm triggered by motion detection set by motion menu of DVR.

4.2.5 Extra Alarm

S.M.A.R.T. alarm is an alarm signal triggered when the HDD is about to be out of operation.

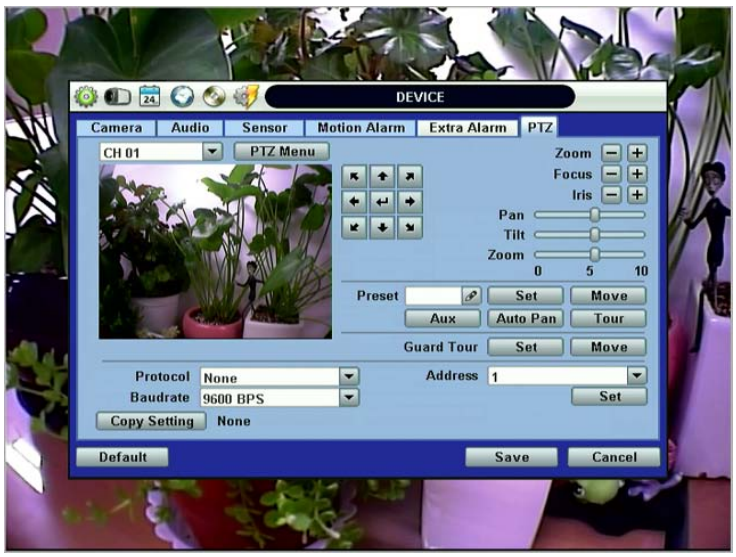
This alarm is created by the HDD and captured by DVR. If the HDD does not create this alarm, then the DVR also cannot capture and output this signal.

Users also set the percentage for HDD Usage. For example, when Usage is 50%, DVR will notify by a camera popup or a beep sound when HDD is 50% full.

4.2.6 PTZ

Full control of PTZ camera is available in this menu.

For details, please refer to Section 3.3 PTZ Operation.



- **"PTZ Menu" (Depending on the model of PTZ camera)**

If selected, the OSD menu of PTZ camera is imported and shown on the DVR monitor allowing the user to control the full PTZ settings.

- **Protocol**

Select the proper protocol of the connected PTZ camera.

- **Address**

Set the PTZ driver address of the connected camera.

- **Check the below items for proper P/T/Z operation.**

1. Check if the protocol of the connected PTZ camera is correct.
2. Check if the communication settings, including the baud rate, of the connected PTZ camera are in accordance with the assigned value for that P/T/Z protocol.
3. Check if the address of the connected PTZ camera is correct.
4. Check if the wiring to the P/T/Z controllers are correct.

PROCEDURE	**How to setup PTZ camera with Pelco-D protocol (example)**
	1) Make sure the serial communication with the PTZ camera is through RS-485 port. 2) Select "Pelco-D" at the protocol list, and set the address. 3) Select Baud Rate to be the same as the PTZ camera 4) Click the "Save" button to confirm this configuration.

- **Preset**

The system supports the number of preset from 1 to 255.

- **Baudrate**

User can select the baud rate level from 1,200bps up to 115,200bps.

4.3 Record

Users can configure various record settings such as Continuous, Event, and Panic for each individual camera channel in the Record Setup Menu. Network Stream settings are independently configured from the Record settings in this menu as well. Therefore, the user can optimize the bandwidth used by configuring the resolution, FPS, and image quality separately.

4.3.1 Record Setup

The Record Setup menu consists of two main schedule settings such as Schedule1 and Schedule2. A schedule simply refers to the Record Setup page. Users have the option of setting one (1) schedule, or a combination of both Schedule 1 and Schedule 2. This feature enables the user to create a more detailed record setting for each camera channel.

Users can configure record settings such as Resolution, FPS, Quality, Pre/Post Alarm, and Record Type for Normal Recording (Continuous) and Event Recording (Alarm or Motion) in each Schedule.

It is recommended that a user first select a “Type” (Record Type) for each camera channel.

For example, if the Type is "C" (Continuous), Event Recording will be disabled, and the DVR will use the settings for Continuous Recording only.

<Continuous Record setting>

If the Type is set to "M" (Motion) or "S" (Sensor/Alarm), the DVR will use the Event Recording settings only.

<Event Record setting>

In the case that the Type is set to "C+M" (Continuous + Motion), "C+S" (Continuous + Sensor), or "C+M+S" (Continuous + Motion + Sensor), both Continuous and Event Record settings are simultaneously engaged.

If there is no event (Motion, Sensor, Alarm), the DVR records continuously with the Continuous Record settings. If there is an event (Motion, Sensor, Alarm), the DVR records with the Event Record Settings.

If you want to disable a specific camera from recording, select the “NONE” option for the Type.

<Resolution setup>

Select the record resolution for each camera channel.

Users can select the record resolution for each camera channel. The record resolution is applied to both Continuous and Event (Sensor, Alarm, Motion) record settings.

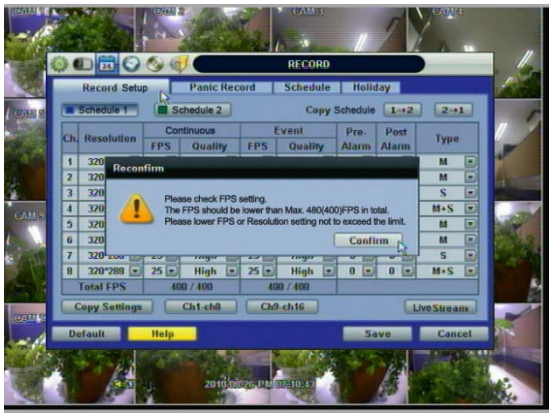
In here, the resolution means required horizontal and vertical pixels in a page. The resolution is indicated as (horizontal) X (vertical) pixel number. Select one setting from 352×240/288, 720×240/288, and 720×480/576. Default is 352×240/288. As the resolution number increases, the picture quality is higher. In fact, 352×240 is VHS level and when high quality camera is used, 720×480/576 shows DVD level picture quality. When the picture quality gets higher, the storage capacity is bigger and the recording period will be shorter. Thus, selecting an appropriate resolution according to the situation is important.

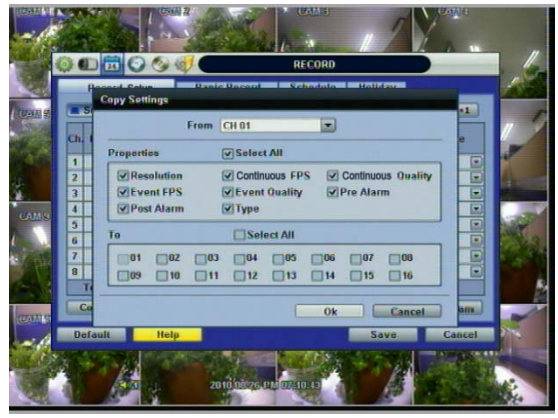
<FPS and Quality Setup>

Select the FPS (Frames Per Second) for each camera channel.

FPS means, "Frame per second". The system automatically calculates "Remaining FPS" that users can use.

The setting value of "Quality" directly influences the byte size per image. For example, the byte size decreases as the quality goes lower. At low quality settings, blocking (mosaic) phenomena tends to appear, which is in result of high compression. In contrast, blocking phenomena disappears as quality goes higher. As quality increases, the required storage space per image increases, which leads to the shortening of total available recording period. Therefore, consider the necessary recording period, the importance of each camera image, and the quality of the analog signal when setting the recording quality.





NOTE The maximum number of FPS is 480(400)FPS for the system. If the recording setting exceeds the limit while users setup the Resolution and FPS, the popup message "Please Check FPS setting." will show up. Please refer to the remaining FPS and setup the resolution and FPS again.

NOTE **COPY SETTINGS**
Upon pressing Copy Settings button, Copy Settings popup will appear. In this popup, choose the camera the user wants to copy from the "FROM" field. Choose the parameters, such as ON/OFF, RESOLUTION, FPS, QUALITY, and AUDIO on the checkbox. Check on the checkbox with the camera numbers to apply the copy setting(s) to another channel on the "To" box.

NOTE The storage capacity for the same image will be different. Image per byte is ratio to the image dimensions (horizontal x vertical), thus 720×240/288(2CIF) is twice the size of 352×240/288(CIF), and 720×480/576(D1) takes about 4 times the storage capacity. Therefore, when high resolution is selected for the same period, the storage capacity taken up will be larger, and the storage period will be shorter on the same Hard disk capacity.

NOTE For the same resolution, frame per byte size will vary according to various reasons such as the recorded picture quality setting, movement, complexity of the image, and noise. Therefore, the total recording period will differ hugely according to the specific image conditions.

- 352×240/288 : Standard Quality Standard 1~5KB
- 720×240/288 : Standard Quality Standard 5~10KB
- 720×480/576 : Standard Quality Standard 10~20KB

"Quality" by 40(low), 60(standard), 80(high), and 100(highest) makes frame size different by around 30% in each level.

Users can also configure the Network Stream settings independently from the Record settings.

Click the “Live Streams” button. A popup window will now appear for the Live Stream as shown below.

The Live Stream menu enables users to optimize data transmitted over the network by configuring the Resolution, FPS, and Quality without affecting the Record settings.

For example, users can configure CIF (352x240) resolution, 3~5 FPS with Normal quality for Live Stream(for Network) and configure D1 (720x480), 30 FPS with Highest quality for record.

Users also have the option to configure Panic Record settings. The Panic Record setting is intended to be used under emergency situations. You engage Panic recording by pressing the “Instant Record” button on the frontal keypad, or clicking the icon from the control panel in live mode. It is highly recommended to use the maximum resolution, FPS, and quality for this record type.

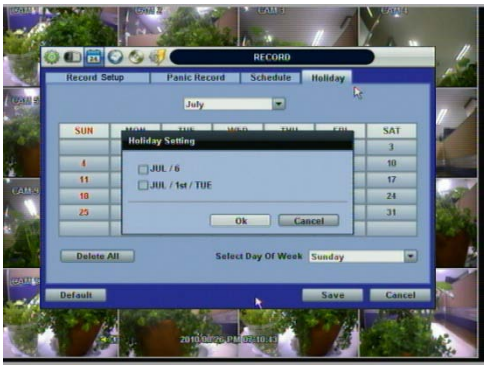
4.3.2 Schedule

Set the recording schedule for each schedule.
First, select the schedule1 or schedule2 to assign a schedule for each Date/Time, or "All".
Recording can be set by each hour from 1 through 24 a day.
If users want to make a simple schedule setting with a single schedule (Schedule1), users may apply the Schedule1 only to "All" as shown below.

Use a combination of both Schedule1 and Schedule 2 to setup a more detailed record schedule as shown below.

4.3.3 Holiday

Users can setup a specific day of a month or day of week as a holiday as shown below. Once holiday is selected, the recording setup for those holidays will be affected by the schedule setting in the schedule.



4.4 Network

4.4.1 Network

The system has built-in web server.

- **Network Type**

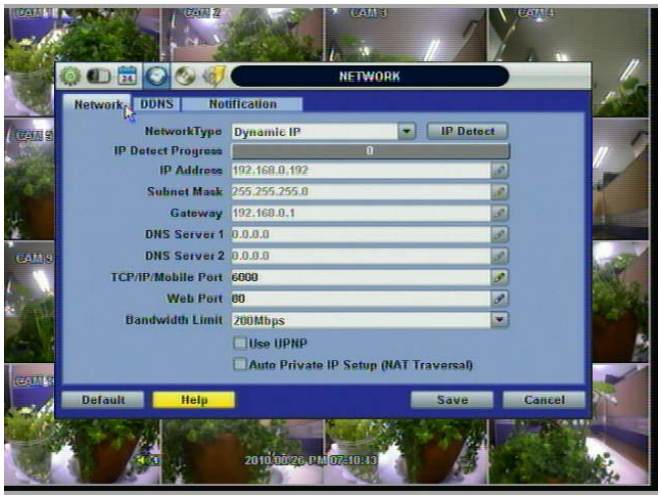
Select network connect type. Select either LAN for fixed (Static) IP or DHCP for dynamic IP.
If DHCP is selected, click 'IP DETECT' button to detect IP address information.

- **Subnet Mask**

Subnet Mask address classifies the subnet that the system belongs to. Standard address is 255.255.255.0. For more information, please consult your network administrator or your internet service provider

- **Gateway**

This is the IP address of the network router or gateway server. It is required when the user wants to connect through the external router from the remote. For more information, please consult your network administrator or your internet provider



- **DNS Server**

Enter the IP address of the Domain Name Server. There are two DNS settings. (The preferred DNS and the alternative DNS)
*You should enter the DNS Server information in order to use internet. (Provided by your ISP)

- **TCP/IP Port**

Enter the port number to use when connecting locally or remotely.

- **Mobile Port**

Enter the mobile port number to use when connecting to mobile phones.

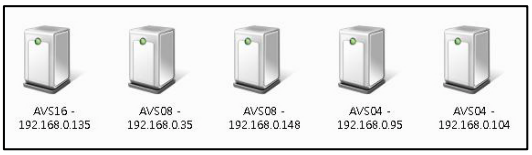
- **Web Port**

Enter the port number to use when connecting from the Web Browser.

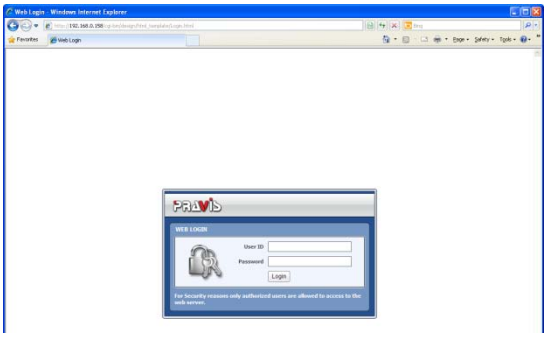
NOTE TCP/IP Port, Mobile Port, and Web Port should be a different number from each other.

- **UPnP (Universal Plug and Play) and Auto Private IP Setup (NAT Traversal)**

UPnP stands for Universal Plug and Play, which is a relatively new technology that indicates a universal protocol for widespread plug-and-play devices to ease the network implementation. When a PC and a DVR both installed the UPnP function, the PC can automatically recognize the DVR in the same local area network. The advantage of this function is that a PC can connect to the DVR directly by clicking on the icon representing the DVR in <My Network Places> folder as shown below. The first five characters of the file name of a detected DVR is subject to a firmware version



Simply double click on the desired icon. Then, it will open an internet browser that connects to the DVR via the remote control software as shown below. Please type in your User ID and Password to login and click 'Connect' button to connect.



- **Auto Private IP Setup (NAT Traversal)**

The UPnP NAT Traversal function will help to automatically setup a router if the DVR connects to the internet via a router.

When a PC connects to a DVR, which is not in the same local area network, a real IPO address and corresponding port number is required. However if the DVR is behind a router, the communication between the PC and the DVR will be transmitted back and forth by the router. The router will need to setup port mapping (Port Forwarding) before images from the DVR is remotely viewed on the PC. For each individual DVR, the setting needs to be done individually.

If the DVR has UPnP NAT traversal function, the setting of the router will be done automatically when it is enabled.

Just check 'Auto IP (NAT Traversal)' check box in the UPnP setup menu. Then it will take care of Auto IP detect by itself.

NOTE	The system transfers video images at real-time over the network even during no record. For example, user can monitor live video even when motion has not occurred during motion detection mode.

NOTE	If there is no physical network connection, it may take a few minutes for the system to start working, since the network configuration in DHCP mode and the DHCP connection cannot be made.

NOTE	The maximum number of simultaneous connection is 10 users for the DVR.

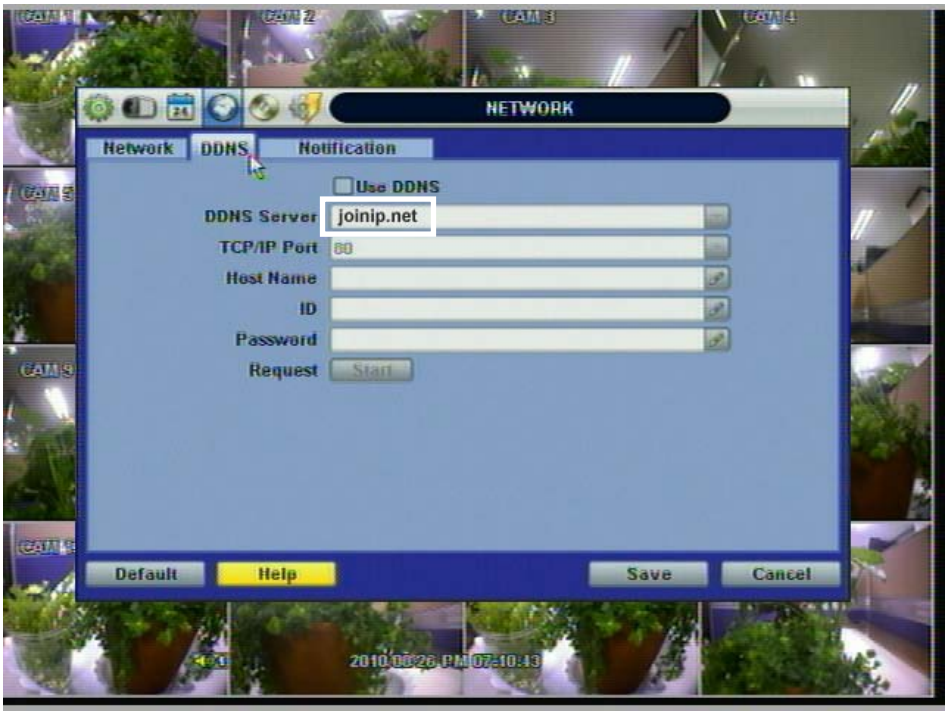
4.4.2 DDNS

The User has to mark the “Use DDNS” check box to use it.

- **DDNS Server**

jointip.net is the fixed domain name of DDNS server

User cannot change the DDNS name.



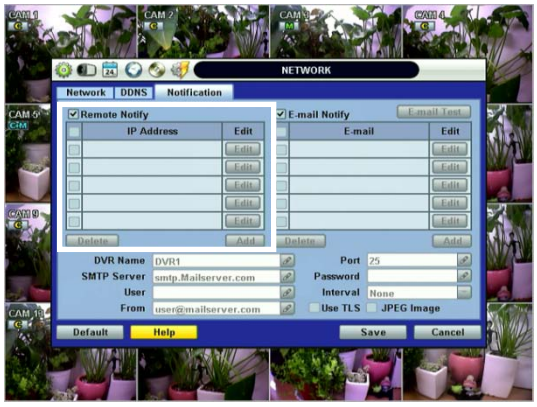
NOTE The standard DDNS domain name is joinip.net, and users can use dyndns.com by drop-down list.

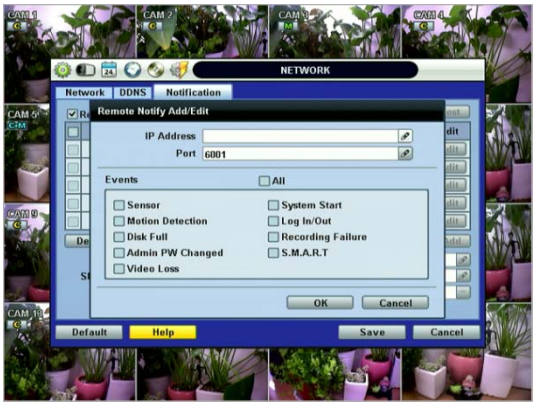
4.4.3 Notification

- **Remote Notify**

The system can notify an alarm message to the IP address of Advanced Client Software over the network.

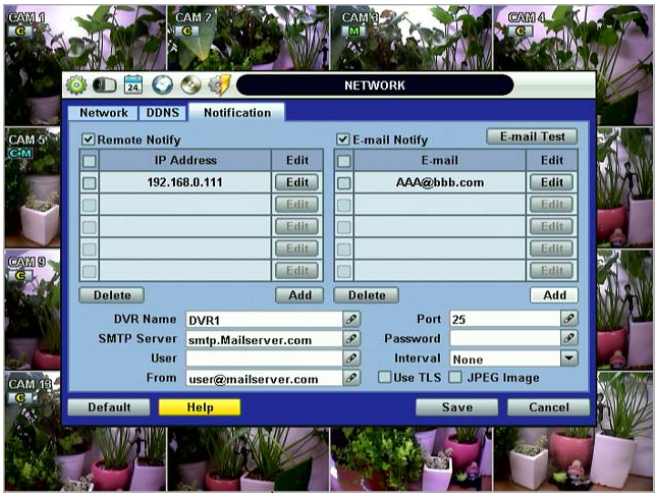
User can choose from a selection of different kinds of alarms by pressing "ADD." Alarms can be generated by Sensor, Motion Detection, Disk Full, Admin PW Changed, Video Loss, and Power On/Off.





- **E-Mail Notify**

The system can send notification to an Email address or Advanced Client Software and the Central Management System over the network. User can choose from a selection of different kinds of alarms by pressing "ADD." Alarms can be generated by Sensor, Motion Detection, Disk Full, Admin PW Changed, Video Loss, and Power On/Off. By clicking "Use TLS", users can use a public email address such as Yahoo, Google, Hotmail accounts. Type DVR name in the "DVR Name" box. The DVR name will appear in the email so that users can recognize which DVR sent an email.



NOTE Configuration's first priority is always given to "Record Setup(Schedule1/Schedule2)" of the "RECORD" menu. Thus, the system will not send alarm message or email notification upon motion alarm or sensor even though user marks the checkbox of above event selection, unless user sets the "Record Setup(Schedule1/Schedule2)" in the "RECORD" menu.
For example, if user sets "Continuous" only for "Schedule" of the "RECORD" menu and marks the "All" checkbox in "REMOTE NOTIFY", then the system will not send alarm messages. In this case, user has to set "CONT + MOT", "MOTION", "SENSOR", or "CON + SENS" for REMOTE NOTIFY to function properly.

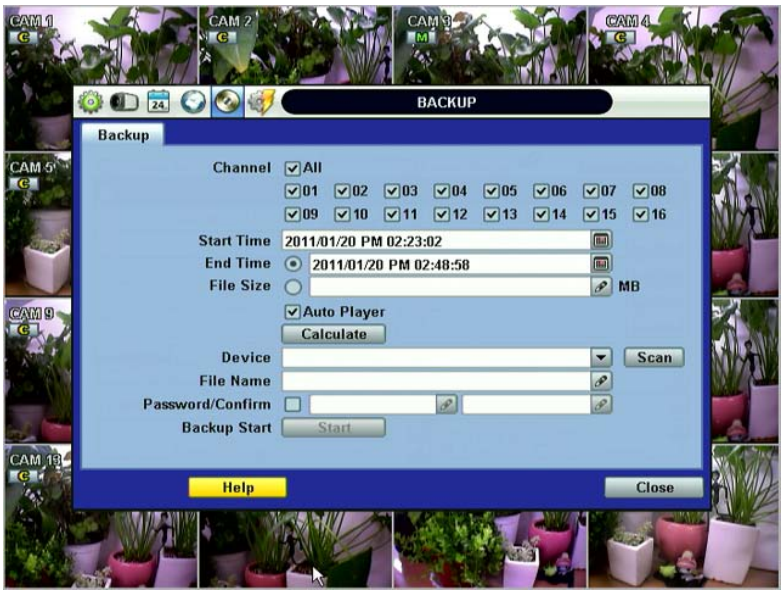
4.5 Backup

4.5.1 Manual Backup

Users can archive a video clip recorded for a certain period on a selected channel or channels as shown below.

Connect an appropriate USB memory device, like USB thumb drive, USB HDD, or a built-in CD or DVD burner and press “SCAN” button to get the system to recognize it before archiving. Necessary file size will be shown before burning.

Users can select the “Auto Player” check box to save automatically with an executable viewer file. This allows the user to play the video clip without having to install another program on his/her computer. Otherwise, the file backup format will be in the manufacturer’s proprietary “PSF” format.



NOTE	Backup device shall be a well-known major brand of USB thumb drives formatted by FAT/FAT32 for proper backup.

CAUTION	DVD medias supportive are DVD-R/+R. DVD-RW/+RW are generally not supported. Check the compatible media list provided by ODD driver manufacturer.

NOTE	User can easily backup video in “Quick Backup” during video playback. Refer to section 3.5 for quick backup details.

NOTE	User can click the “Calculate” button to learn the backup file size before executing backup.

NOTE	User can rename the backup file name before starting backup process and also put a password in the backup file for security purpose. In order to playback the file, user should input the password.

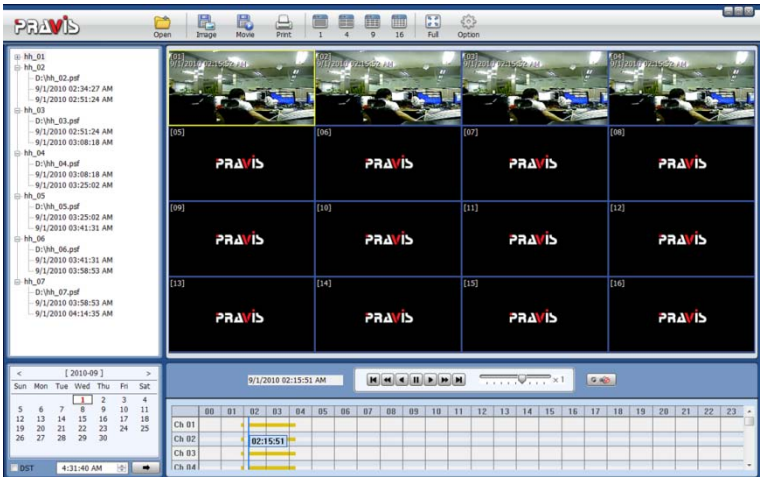
4.5.2 Backup Video Retrieve

There will be a single file after archiving, if "Auto Player" was selected.

User can double click the backup file to open the video data file. If the backup file doesn't have Auto Player, user can double click "BackupPlayer.exe" file to open the video data file (PSF format) in the folder of date.

To begin video play, user can drag a PSF file (Video data file) and drop it in the empty screen of Backup Player as shown in the picture. Alternatively, the PSF file can be opened by clicking the "Open" button.

If the user inserts USB memory stick or CD media that has the Video data file, the Backup Player will automatically begin playing the files, starting with the first data file located in the device.



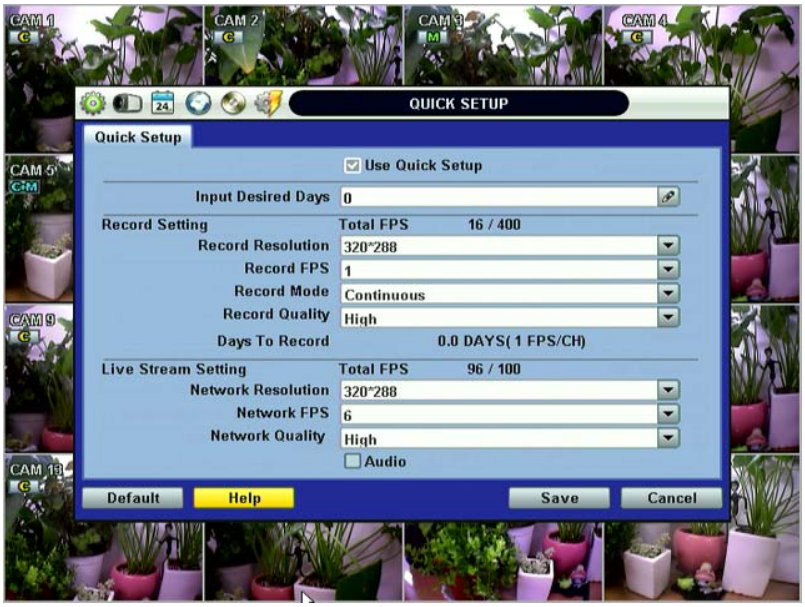
User can print out, capture a still image, zoom out, or make an ASF file format, by using the icons located on top of the player window.

NOTE User also can play the backup-video clips by Advanced Client Software and Central Management System.

4.6 Quick Setup

Quick Setup helps user make simple configuration for recording resolution, entire recording speed by frame, recording mode, and recording periods.

The system will put the first priority for configuration on this quick setup and will follow this rule regardless of configurations set in other menus. Users should not fill in the checkbox of Use Quick Setup if he/she wants to utilize full system configuration defined in the other menus.



NOTE Quick setup must be deactivated if the user requires configuration from the other menus.

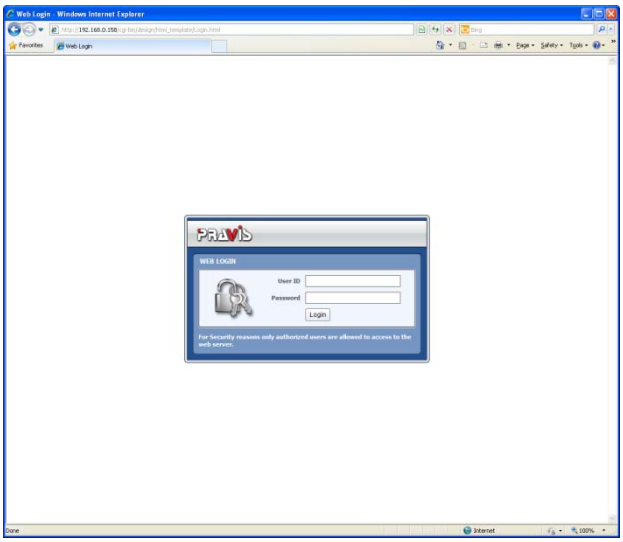
NOTE After the user marks “Use Quick Setup” to define settings, the system will ignore all other configurations set by full menus.

5 WEB SURVEILLANCE

The system has a built-in web server.
Using an ordinary web-browser over a network, users can always stay connected to the system for live monitoring, playback, or remote configuration without installing the Advanced Client Software (ACS).

5.1 Web Login

The user is required to input the correct IP address in the web browser after making the web port available in the router. After allowing the download of the Active-X file, users can find the login page view seen below. Default USER ID is "admin" and No password.



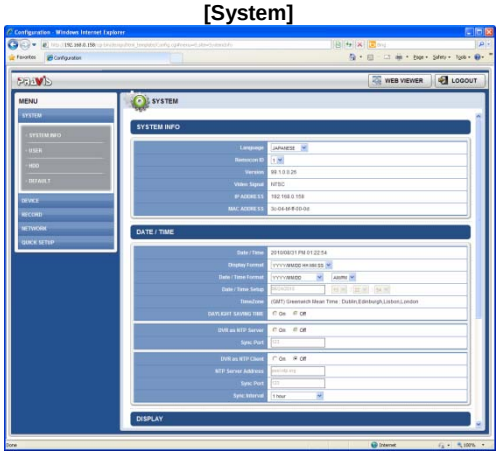
5.2 Web Configuration

Menu of Web Configuration

Main Classification	Sub Classification
SYSTEM	SYSTEM INFO
	USER
	HDD
	DEFAULT
DEVICE	CAMERA
	AUDIO
	SENSOR
	MOTION ALARM
	EXTRA ALARM
RECORD	RECORD SETUP
	PANIC SETUP
	SCHEDULE
NETWORK	NETWORK
	DDNS
	NOTIFICATION
QUICK SETUP	QUICK SETUP

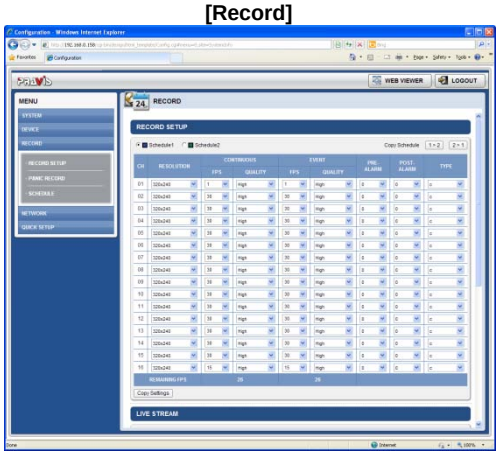
After logging in with the right ID and password, users can make various configuration changes in the Web Configuration window seen below. This Web Configuration menu is only available to the “admin” account.

[System]

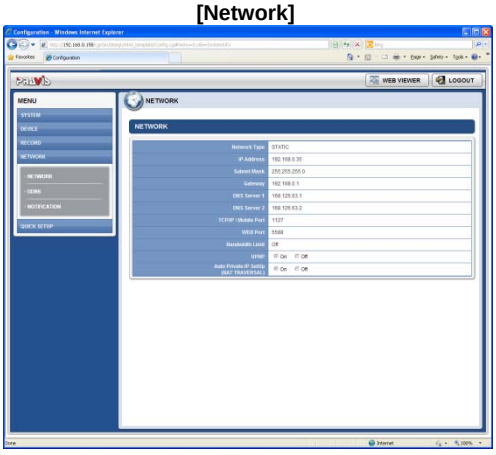


[Device]

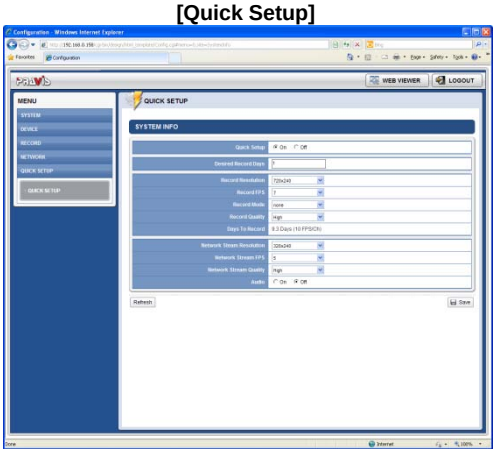
[Record]



[Network]



[Quick Setup]

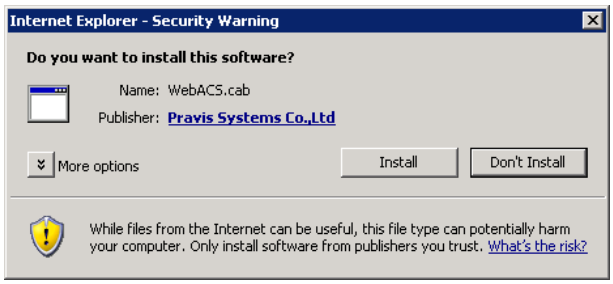


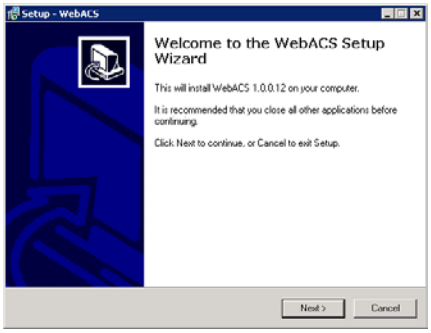
NOTE This DVR system has its own built-in web server.
This web CGI screen is directly supported from the built-in web server in the DVR, regardless of Internet connection.

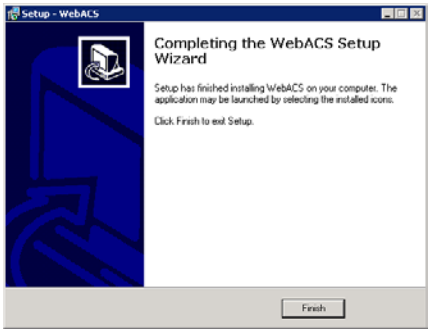
NOTE <System Reboot> enables user to reboot the system without any changes to the setup.
When the network is disconnected due to abnormal operation of the system, user can use this function and try to reconnect. However, the IP number assigned to the system may be changed due to the DHCP mode.

5.3 Web monitoring

User has to download Active-X file from DVR and install it at workstation PC before monitoring live video.


Internet Explorer - Security Warning
Do you want to install this software?
Name: WebACS.cab
Publisher: Pravis Systems Co.,Ltd
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

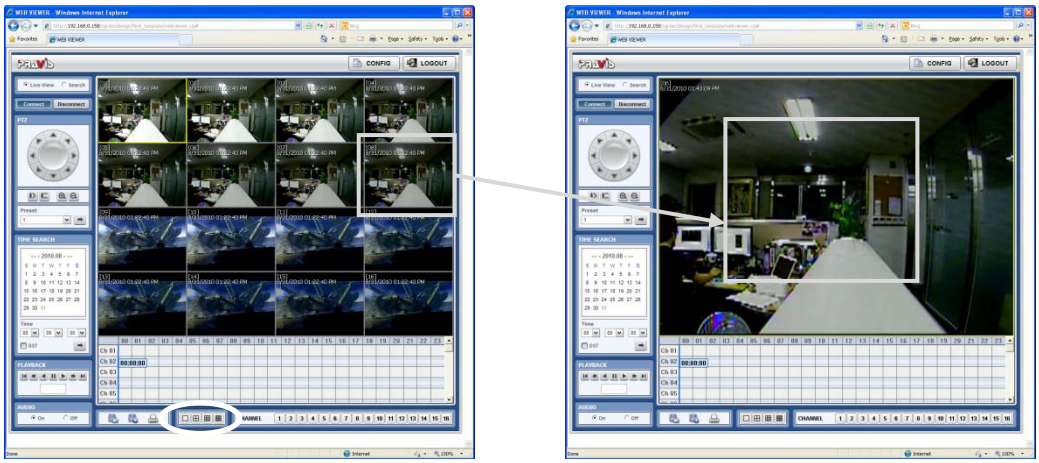

Setup - WebACS
Welcome to the WebACS Setup Wizard
This will install WebACS 1.0.0.12 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel


Setup - WebACS
Completing the WebACS Setup Wizard
Setup has finished installing WebACS on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Finish

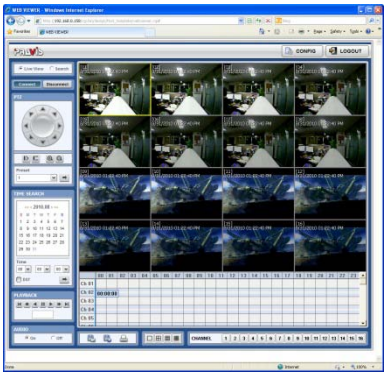
[Web Active X Install]

User can get into web monitoring after log in as shown below. In order to connect to DVR, the user has to click " Connect " button which is located at the top left corner.

User can monitor live video in 1, 4, 9 or 16 screen modes. If user wants to see single channel in full screen, user can double-click on the left mouse button when the cursor is positioned on the live video screen. User can change to single mode by clicking the mode icon located at the bottom left.



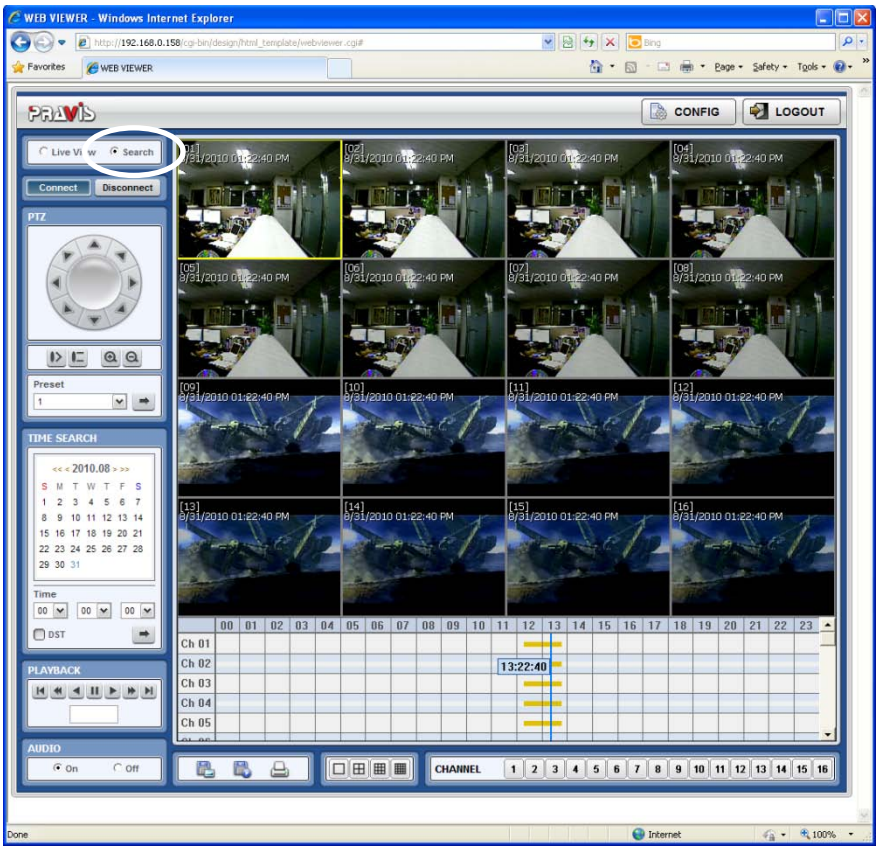
NOTE The image resolution in "Live monitoring" in this web browser is directly transferred from DVR (Live image over the web browser depends on the Live Stream value on Record mode of DVR)



NOTE If live image is not properly shown on IE web browser due to network traffic jam or narrow bandwidth, it is recommended to close and re-open the IE web browser.

5.4 Web Playback

Users can remotely playback the DVR images by clicking “SEARCH” button in the middle of bottom window. In order to connect to DVR, the user has to click “ Connect ” button which is located at the top left corner.



- **Playback Time**

Select the date and time on Time Search, located at the middle of left side of window, and click button.

- **Playback Icon**

Play/Pause is toggled and playback speed is shown on the left box.

- **Play DST**

Check this box to play overlapped images during DST (Daylight Saving Time) period.

For further details, please refer to Section 3.7 (DST Setting and Image Playback)

- **Intelli-Search Bar**

User can move the blue vertical line to the time that user wants to search.

The colors of the time bar are different by each recording mode. Please, refer to Section 4.3.2 for details on color

Chapter 2

ACS CLIENT SOFTWARE USER MANUAL

6 ACS USER GUIDE

6.1 System Requirement

Recommended System Requirement

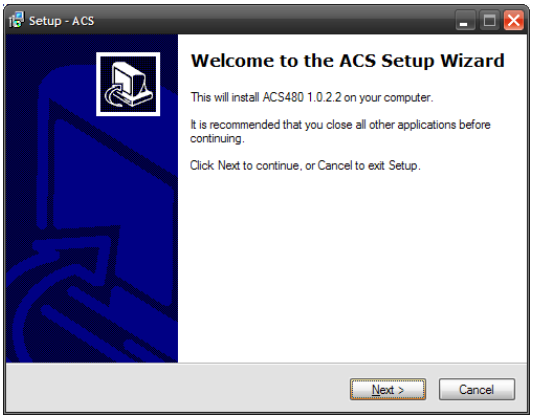
OS	WindowXP, Vista, 7
CPU	Pentium Dual core 1.8Ghz or higher
VGA	1024*768, 256Mb supporting DirectX
RAM	1GB
HDD	20MB for installation, 10GB for Remote backup

Minimum System Requirement.

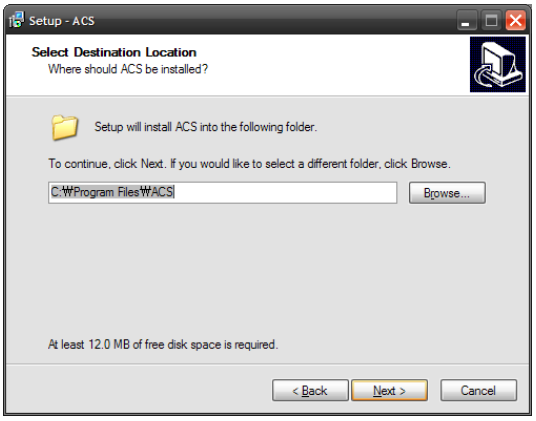
OS	WindowXP, Vista
CPU	Pentium 4, 2Ghz
VGA	1024*768, 64MB 24bit color graphic card
RAM	1GB
HDD	20MB Free space

6.2 Install

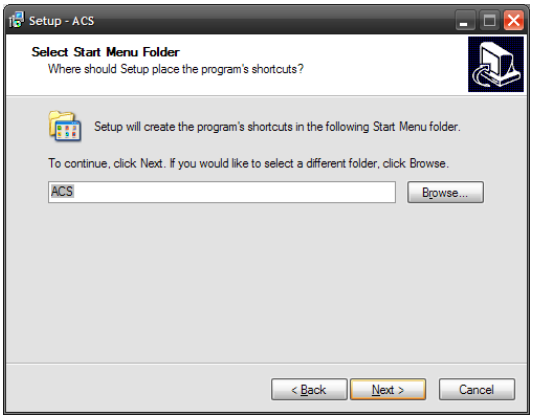
a. Run Advanced Client SoftwareSetup.exe on CD and then a Setup Menu appears as below.


Setup - ACS
Welcome to the ACS Setup Wizard
This will install ACS480 1.0.2.2 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

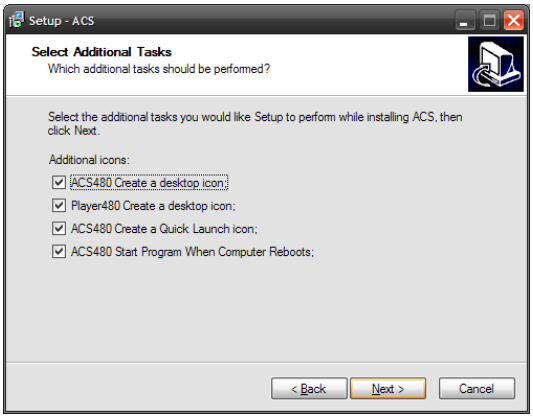
b. Press [Browse…] button if you want to install the program in a different directory.


Setup - ACS
Select Destination Location
Where should ACS be installed?
Setup will install ACS into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:₩Program Files₩ACS
Browse...
At least 12.0 MB of free disk space is required.
< Back
Next >
Cancel

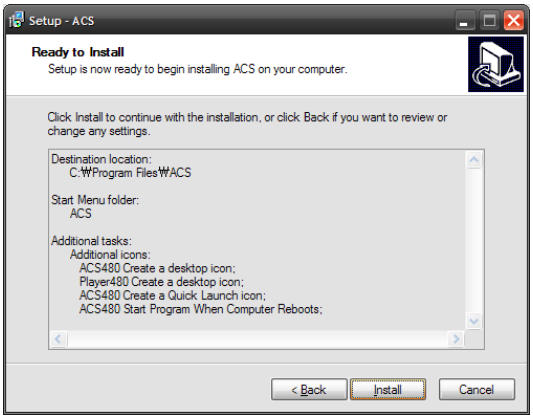
c. Press the [Next] button to move to the next screen.


Setup - ACS
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
ACS
Browse...
< Back
Next >
Cancel

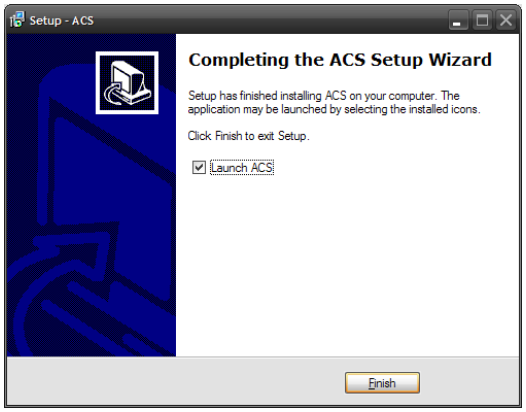
d. Press the [Next] button to move to the next screen.


Setup - ACS
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing ACS, then click Next.
Additional icons:
ACS480 Create a desktop icon;
Player480 Create a desktop icon;
ACS480 Create a Quick Launch icon;
ACS480 Start Program When Computer Reboots;
< Back
Next >
Cancel

e. Press the [Install] button to move to the next screen.


Setup - ACS
Ready to Install
Setup is now ready to begin installing ACS on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:₩Program Files₩ACS
Start Menu folder:
ACS
Additional tasks:
Additional icons:
ACS480 Create a desktop icon;
Player480 Create a desktop icon;
ACS480 Create a Quick Launch icon;
ACS480 Start Program When Computer Reboots;
< Back
Install
Cancel

f. Click [Install] to begin installation. When the installation is complete, the message appears as below.

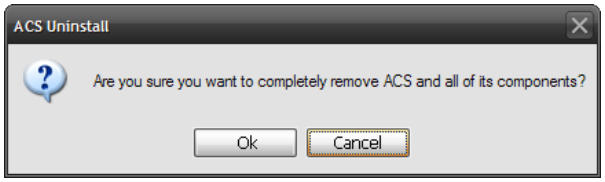

Setup - ACS
Completing the ACS Setup Wizard
Setup has finished installing ACS on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Launch ACS
Finish

6.3 Uninstall

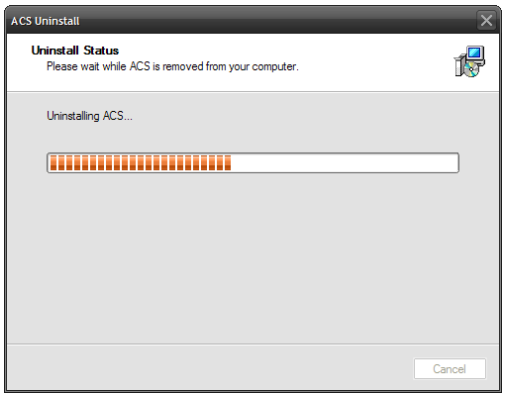
To un-install ACS, press [Uninstall ACS] from Start.

Then, Account Manager will appear in Windows7 or Windows Vista.

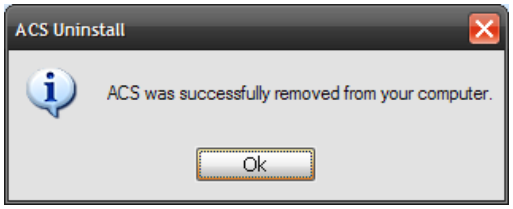
Press [Yes] to move to the next screen below.



Press [Yes] to begin uninstalling ACS like below.



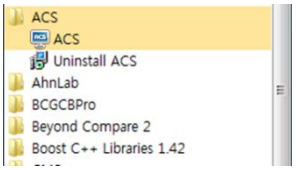
When the un-installation is complete, the following message appears.



6.4 Basic Operation

a. Click on ACS icon on Desktop

b. Starting ACS from Start.



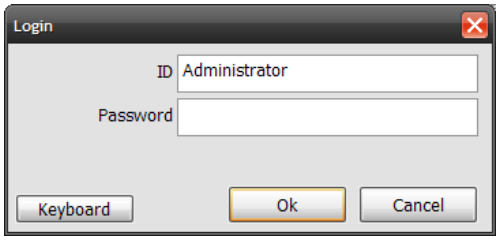
6.4.1 Log In

The Default ID and password for administrator is "admin" and "Blank", which is the highest level of authority for the operation of Advanced Client Software.

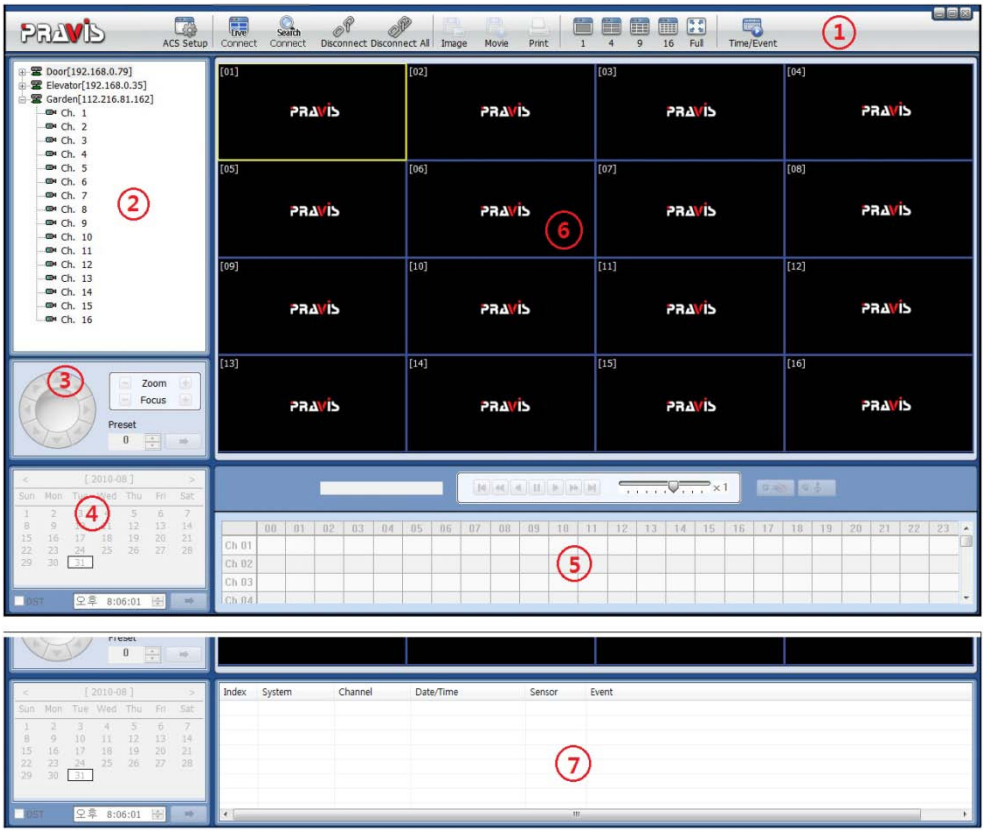
Default ID and Password for Administrator

- User ID: admin

- Password: No Password

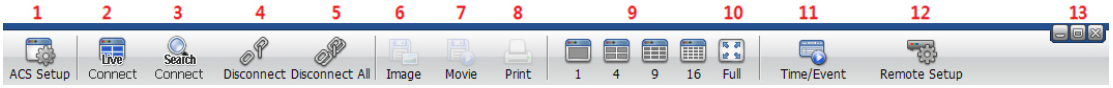


6.4.2 Screen Layout



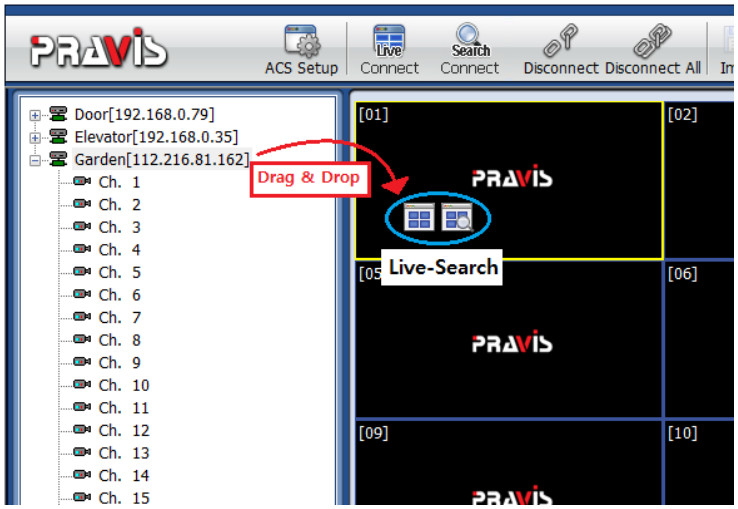
No.	Item	Description
1	Toolbar	ACS Setting, Live Mode, Search, Disconnect, Image Save, Video Save, Screen Mode Remote Setup
2	Site List Panel	Registered DVR Site list
3	PTZ Panel	PTZ camera control in live mode
4	Calendar Panel	Search by time and date
5	Search Panel	Recorded information is shown in search mode Control the speed of Playback and audio
6	Display Panel	Transmitted camera images are shown
7	Event List Panel	Event list update

6.4.3 Tool Bar



No.	Icons	Description
1	ACS Setup	Option setup for Advanced Client Software
2	Live	Showing live images
3	Search	Showing recorded images
4	Disconnect	Disconnect a selected channel
5	Disconnect All	Disconnect all channels
6	Image	Save a selected image
7	Movie	Save a selected video (asf format)
8	Print	Print out still image
9	Split	Single channel, 4-split channel, 9-split channel, 16-split channel
10	Full	Full screen mode
11	Time/Event	Toggle between Search panel & Event list panel
12	Remote Setup	Configure settings of DVR remotely
13	Window control	Minimize, Maximize & Exit Advanced Client Software

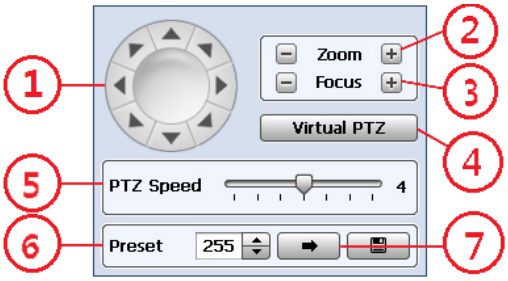
6.4.4 Site List Panel



- The site list panel shows registered DVR lists. To make a connection, Drag & Drop the site or camera and then select between Live or Search mode.

6.4.5 PTZ control Panel

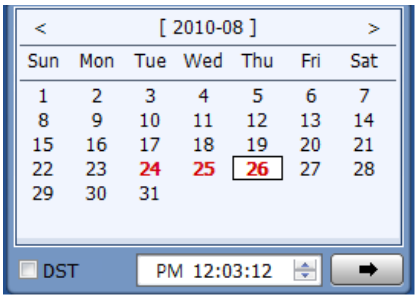
PTZ camera control in live mode.



No.	Button	Description
1	Navigation key	PTZ camera can be moved in 8 directions.
2	ZOOM	Zoom in & Zoom out
3	FOCUS	Adjust the focus of PTZ camera
4	Virtual PTZ	PTZ can be controlled by clicking mouse on channel screen directly
5	PTZ Speed	PTZ moving speed can be operated by the control bar
6	PRESET	Select the preset location
7		Go to the preset location

6.4.6 Calendar Panel

Calendar panel is only available in search mode.



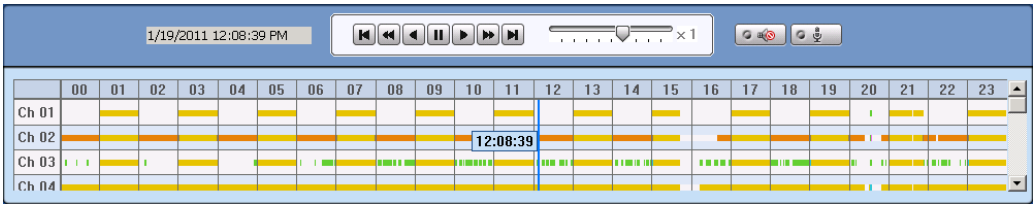
- The date is highlighted by red color if the record data exist.

- (Go button) should be pressed to start playback from the selected time.

- If DST is enabled, the earlier one-hour overlapped video will be shown first.

6.4.7 Search Panel

Search panel is only available in search mode.



- The Search panel shows the record information for each channel.

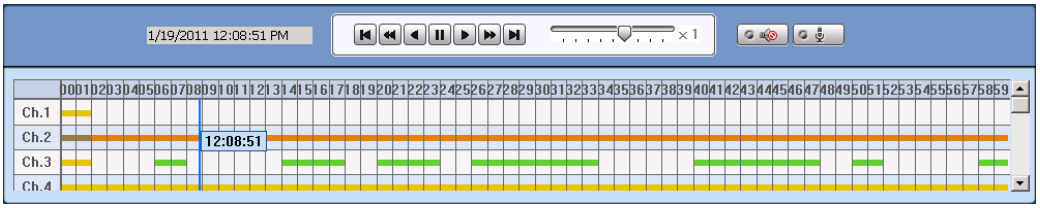
Each record mode is similar to below.

No Record	White
Continuous (Yellow Color)	
Panic(Red Color)	
Alarm(Orange Color)	
Motion(Green Color)	

- Click the time or move the time bar to the time you want to playback in the search panel.

- For a more detailed search like below, double-click the time that you want to jump into.

Detailed search is available on a 2 minute basis like below.



- Playback control panel

No.	Button	Description
1		Go to First
2		Forward Playback : Decrease the speed / Reverse Playback : Increase the speed
3		Reverse Playback
4		Pause
5		Forward Playback
6		Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
7		Go to Last

- Audio control

(Audio On/Off): Turn On or Off for Audio channel.

Two-way Audio : Two-Audio between ACS and DVR.

6.4.8 Display Channel

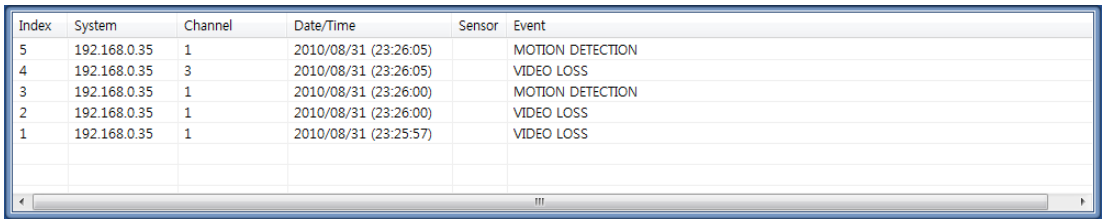
- Showing Live or Search screen

- In Live mode, [Live] will be displayed with all white text information. Blue channel boundary

- In Search mode, [Search] will be displayed with all red text information. Red channel boundary

- Yellow channel boundary for selected channel

6.4.9 Event List Panel



Index	System	Channel	Date/Time	Sensor	Event
5	192.168.0.35	1	2010/08/31 (23:26:05)		MOTION DETECTION
4	192.168.0.35	3	2010/08/31 (23:26:05)		VIDEO LOSS
3	192.168.0.35	1	2010/08/31 (23:26:00)		MOTION DETECTION
2	192.168.0.35	1	2010/08/31 (23:26:00)		VIDEO LOSS
1	192.168.0.35	1	2010/08/31 (23:25:57)		VIDEO LOSS

- Update event lists from DVR

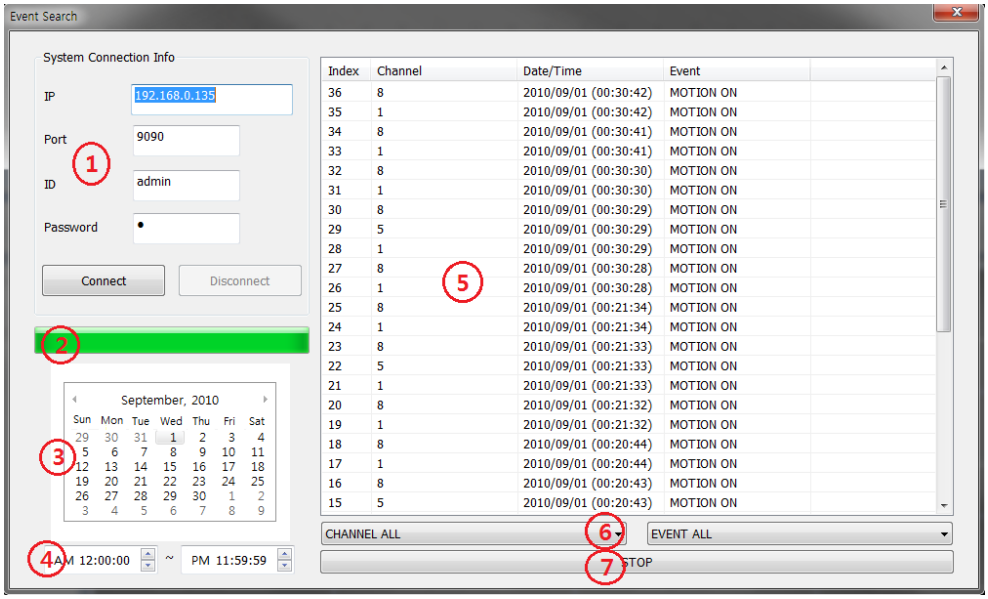
- Start the playback by double-clicking the list .

6.5 Advanced Operation

6.5.1 Event Search

- Click the right mouse button on Site list, and a pop-up menu will appear.

- Click to run 'Event Search'.

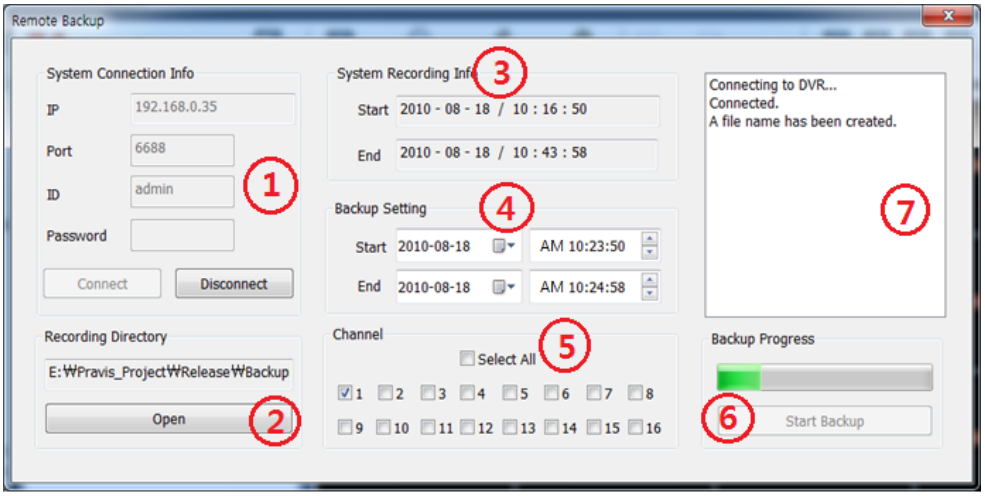


No.	Function	Description
1	Connection Info	Type in the DVR info to connect
2	Progress bar	Showing the progress status
3	Calendar Search	The event date will be shown in bold. Click the date to start event search
4	Time Filter	Set up the time for event search
5	Event List	Showing the event lists
6	Time/Event Filter	Select the channel or event type
7	Stop	Stop the event search

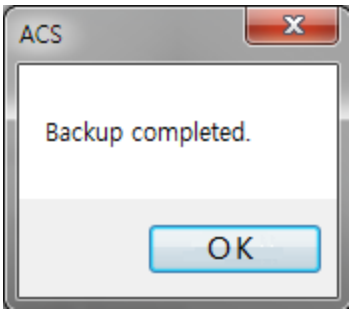
6.5.2 Remote Backup

- Click the right mouse button on Site list, and a pop-up menu will appear.

- Click to run 'Remote Backup'.



No.	Function	Description
1	Connection Info	Type in the DVR info to connect
2	Recording Directory	Select or change the backup directory
3	Record Info	Showing the first and last record
4	Backup setting	Backup time selection
5	Channel	Select the channel for backup
6	Progress	Showing the backup progress
7	Status	Showing the operation status

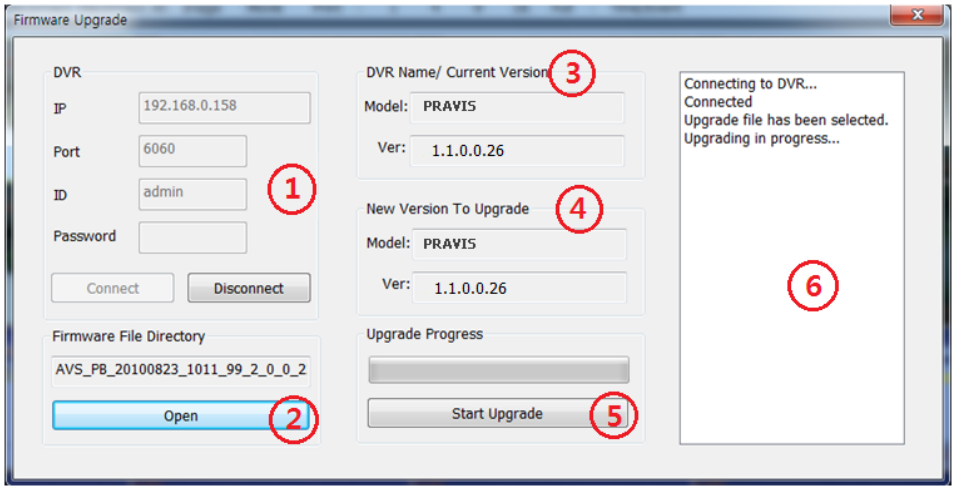


When the backup is complete, the pop-up will appear.

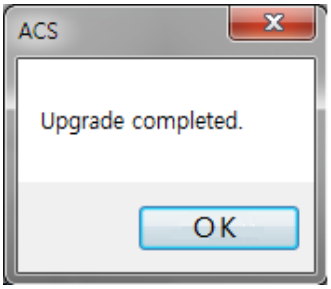
6.5.3 Firmware Upgrade

- Click the right mouse button on Site list, and a pop-up menu will appear.

- Click to run 'Firmware Upgrade'.



No.	Function	Description
1	Connection Info	Type in the DVR info to connect
2	Firmware Directory	Select the new firmware to upgrade
3	DVR Info	Display the DVR information and firmware version
4	New Firmware Info	Display a new firmware information
5	Start	Start a upgrade
6	Status	Showing a operation status



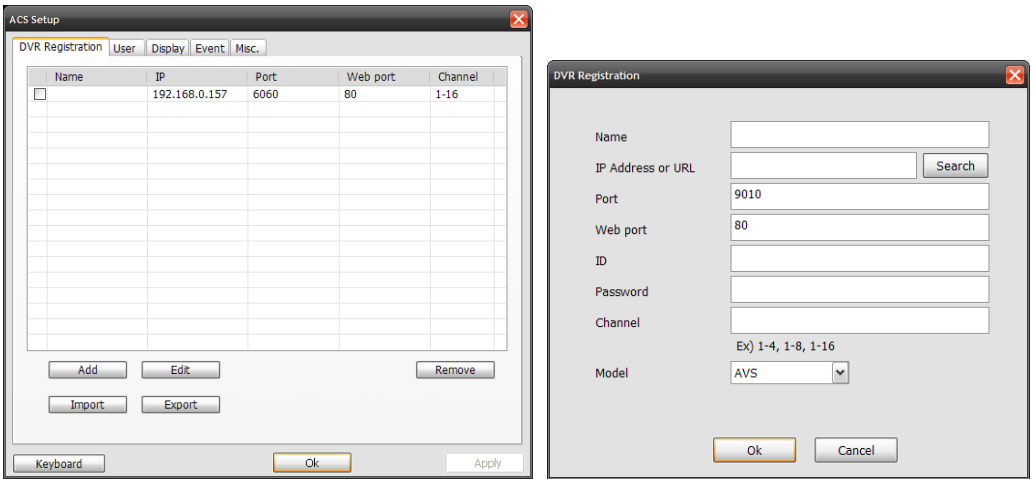
When the upgrade is complete, the pop-up will appear.

6.6 ACS Setup

: Option for DVR Registration, User, Display, and other options.

6.6.1 DVR Registration

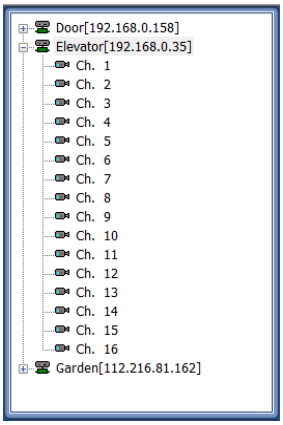
Add, Modify, or Remove DVR site information.



Ex) Adding a new DVR site

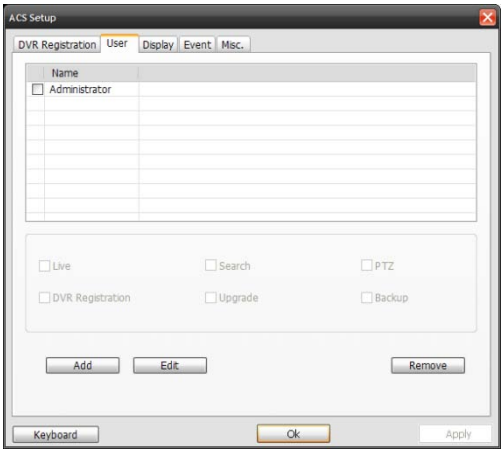
	Function	Description
1	Name	Type in the site name
2	IP	Type in the IP address
3	Port	Type in the Port number (Default : 9010)
4	Web port	Type in the Web port number (Default : 80)
5	ID	Type in the DVR ID to connect
6	Password	Type in the DVR password to connect
7	Channel	Type in the DVR channel to connect (i.e, 16ch DVR : 1-16))

- To modify and/ or remove DVR information, click [Add] or [Remove] to amend DVR site information.



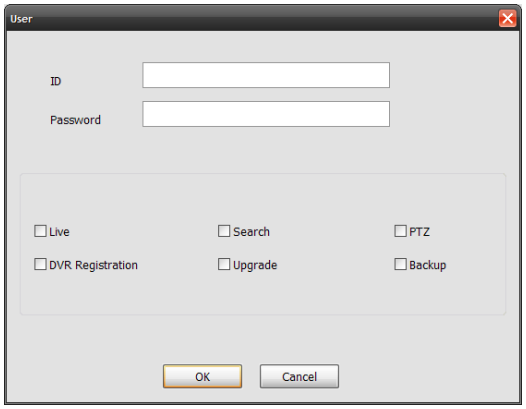
New DVR information will show at DVR site panel, after click [OK]

6.6.2 User



User authority can be changed by Administrator. "admin" is the built-in account for administrating the DVR and ACS program.

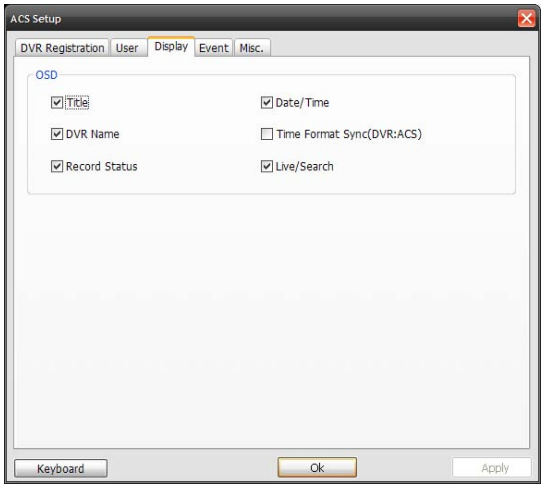
Ex) User authority change



- User authority can be changed by Administrator. ID can not be changed but should be removed.

6.6.3 Display

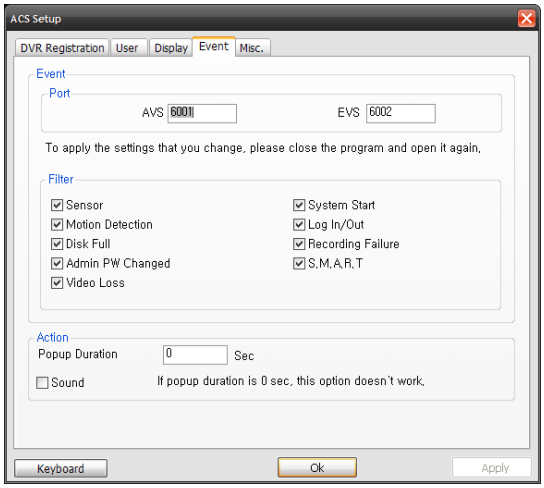
- Options for OSD setting



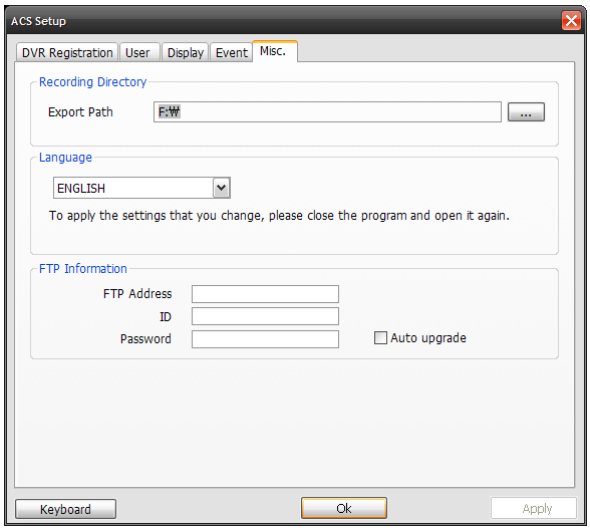
Time format Sync (DVR : ACS) : Synchronize the DVR time format to ACS

6.6.4 Event

- Options for event.



6.6.5 ETC



	Function	Description
1	Recording Directory	To select or change the record directory for still image or video.
2	Event	Type in the event port to receive event list (Recommendation : 1025 ~ 60000)
3	Language	Select the ACS language

Chapter 3

MAC ACS CLIENT SOFTWARE USER MANUAL

7 MAC ACS USER GUIDE

7.1 System Requirement

Recommended System Requirement

OS	Mac OS X 10.6(snow leopard)
CPU	Built-in Intel CPU MAC
VGA	Recommended More than 128MB
RAM	Recommended More than 1GB
HDD	20MB Free Space

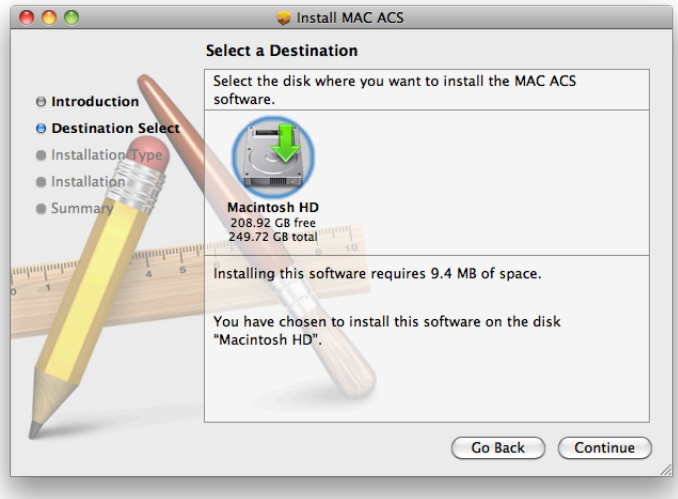
Minimum System Requirement.

OS	Mac OS X 10.5(Leopard)
CPU	Built-in Intel CPU MAC
VGA	64MB
RAM	512MB
HDD	20 MB Free space

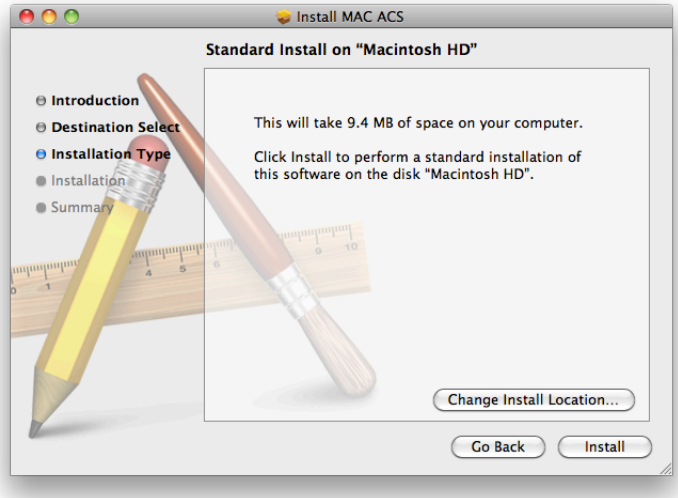
7.2 Install

a. Run MAC ACS.pkg on CD, and a Setup Menu appears as below.

b. Select the HDD to be installed. Press the [Continue] button to move to the next screen.

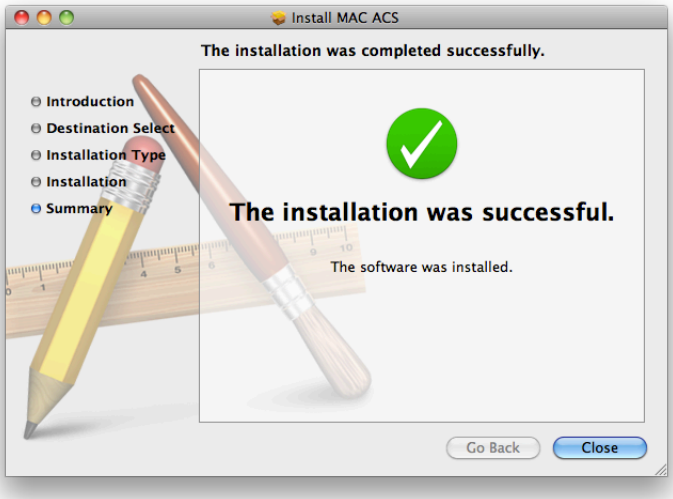


c. Press the [Continue] button to move to the next screen



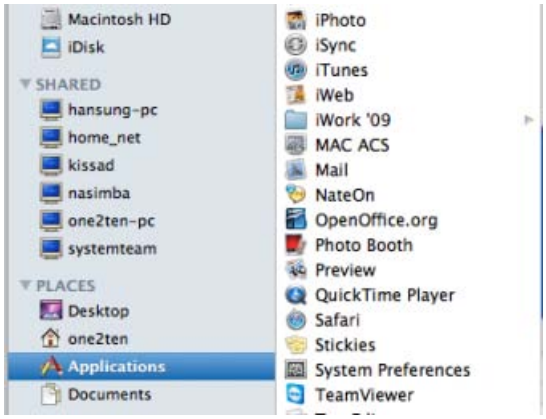
d. Press the [Install] button to Install MAC ACS.

e. Put in the password and Click [OK] to begin installation. When the installation is complete, the message appears as below.



7.3 Basic Operation

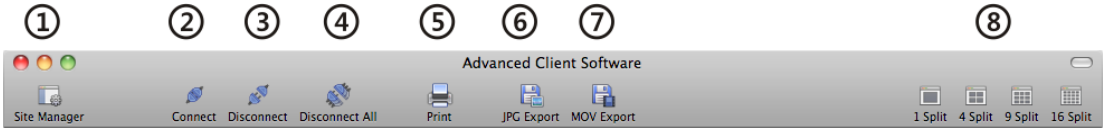
Click on ACS icon on Application Folder



7.3.1 Screen Layout

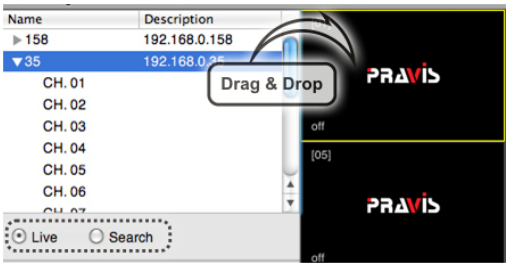
No.	Item	Description
1	Main Toolbar	AVS Setting, Live and Search Connect, Disconnect, Image Save, Screen Mode and Change
2	DVR List Panel	Registered DVR Site List. Possible to connect by Dragging
3	Live or Search Connect Panel	Click Live or Search mode to connect the panel
4	PTZ Panel	PTZ Camera Control in Live mode
5	Calendar Panel	Search by Time and Date
6	Search Panel	Recorded information is shown in search mode. Control the speed of Playback and Audio as well
7	Display Panel	Transmitted Camera images are shown (Live and Playback)

7.3.2 Main Toolbar



No.	Button	Description
1	Site Manager	Register or Delete DVR on the list
2	Connect	Connect to a site that is listed on the DVR list panel (Select Live and Search mode at Connect Mode Panel)
3	Disconnect	Disconnect a selected channel
4	Disconnect All	Disconnect All Channels
5	Print	Print out still image
6	JPG Export	Save a selected image to the desktop as JPEG format
7	Movie Export	Save a selected video clip to the desktop as mov format
8	Split	Single Channel, 4-Split, 9-Split, 16-Split

7.3.3 Site List Panel



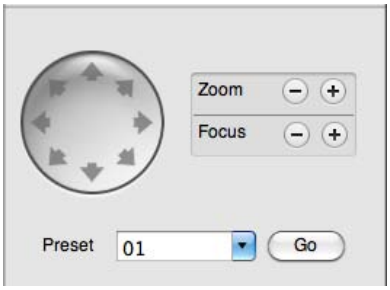
The site list panel shows registered DVR lists. To connect, Drag & Drop the site.

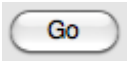
Before you connect the site, Select the Live or Search mode first in the connection mode panel.

16 different On-Screen DVR, a mixture of different connection modes can be monitored.

7.3.4 PTZ Panel

PTZ camera controls in Live Mode. PTZ Camera can control if the channel is activated on PTZ operation.



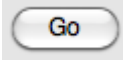
No.	Button	Description
1	Navigation Key	PTZ camera can be moved in 8 directions and Whenever click the direction key, it moves slowly.
2	ZOOM	Zoom In and Zoom Out
3	FOCUS	Adjust the focus of PTZ camera
4	PRESET	Select the preset location
5		Go to the preset location

7.3.5 Calendar Panel

Activated in Search Mode

The recorded data will be shown in blue bold with the dot which is located below the number

When you click the recorded date on the search mode, the playback time will be detected automatically

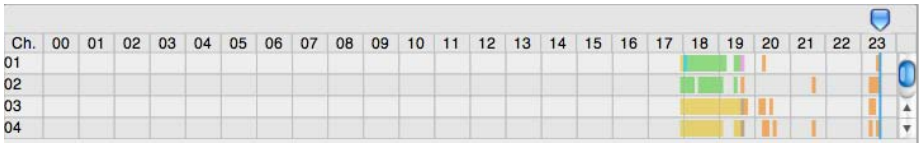


(Go Button) should be pressed to start playback from the selected date and time

If DST is enabled, the earlier one-hour overlapped video will be shown first.

7.3.6 Search Panel

Activated in Search Mode



- The Search panel shows the record information for each channel.

- Each record mode is like below.

No Record	Background Color
Continuous (Yellow Color)	
Panic(Red Color)	
Alarm(Orange Color)	
Motion(Green Color)	

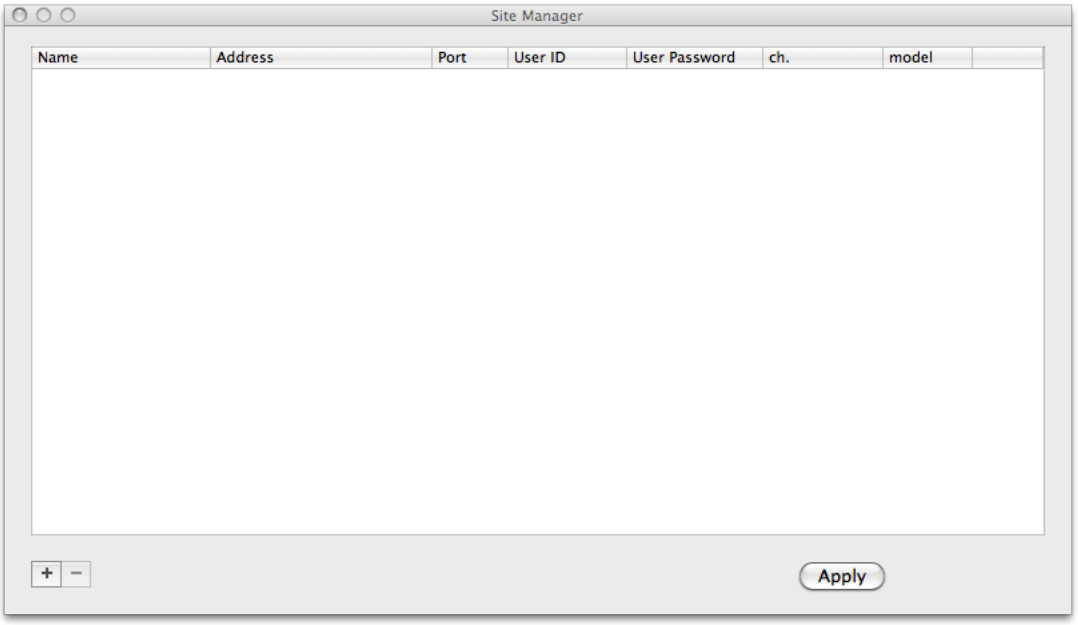
- Click the time or move the time bar to the time you want to playback in the search panel.

- Playback control panel

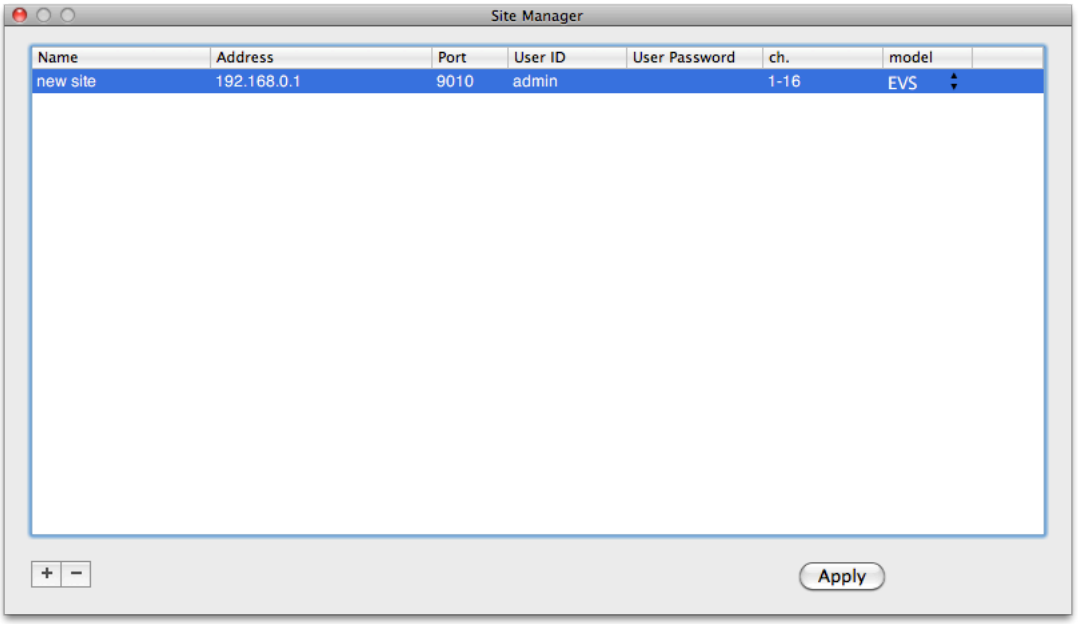
No	Button	Description
1		Go to first
2		Forward Playback : Decrease the Speed / Reverse Playback : Increase the Speed
3		Reverse Playback
4		Pause
5		Forward Playback
6		Forward Playback : Increase the speed / Reverse Playback : Decrease the speed
7		Go 10 seconds before the end of the data.

7.3.7 Site Manager

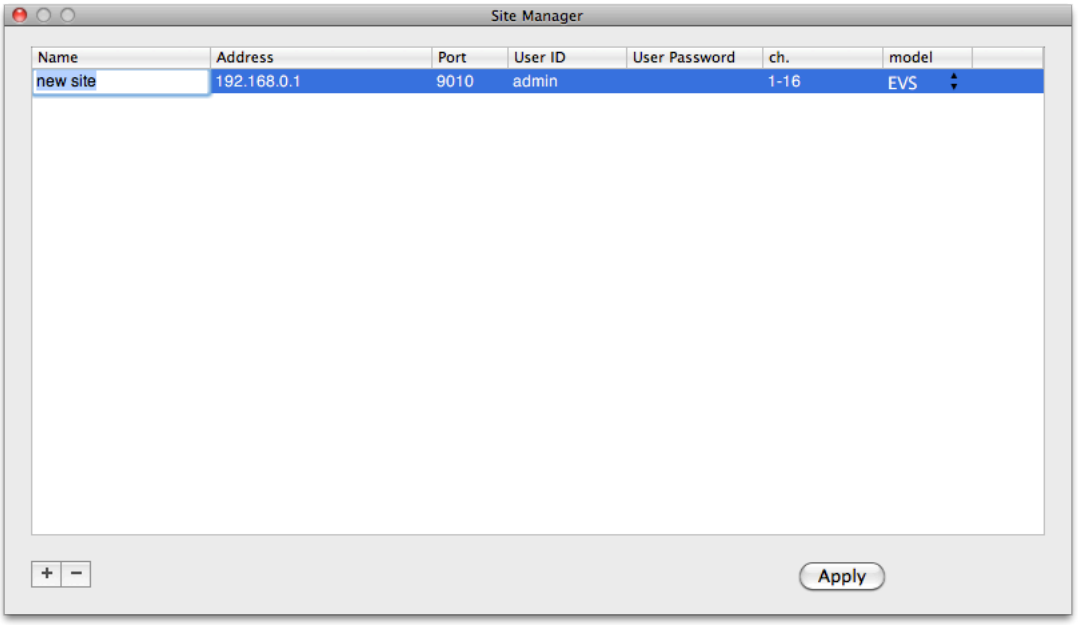
Add or Modify or Remove DVR site information.



Press to register the DVR as follows : The default value is registered



To fix, Double-Click on the item. For example, Double-click " New Site " to change the name.



After modifications have been made, press Apply

No.	Function	Description
1	Name	Fill in the name of the site to be registered
2	IP	Fill in the IP of the site to be registered
3	Port	Fill in the PORT No of the site to be registered (Default 9010)
4	User ID	Fill in the ID of the DVR to be connected
5	User Password	Fill in the PW of the DVR to be connected
6	Ch.	Fill in channel of the site to be registered (ex, 16 Ch DVR: 1-16 or Registered by Camera : 1,3,5,7,9)
7	Model	Select Model name of the DVR to be registered

Please double click the items, if you want to change the item from the registered information.

If you want to delete the registered DVR information, Select the DVR and click −

After modifications have been made, press Apply

Chapter 4

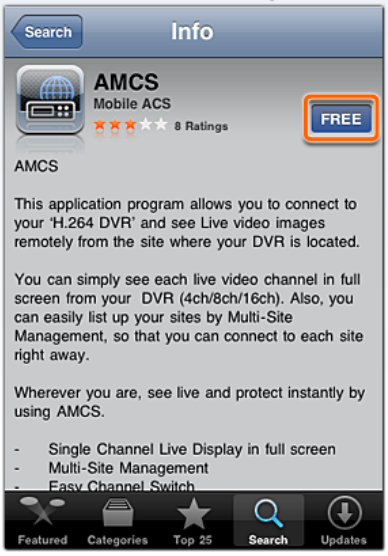
MOBILE PHONE SOFTWARE USER MANUAL

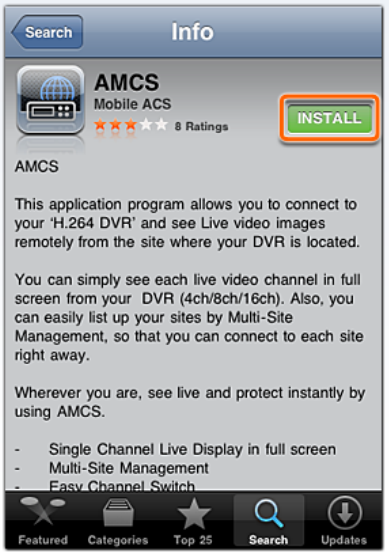
8 MOBILE PHONE SOFTWARE USER GUIDE

8.1 iPhone application software

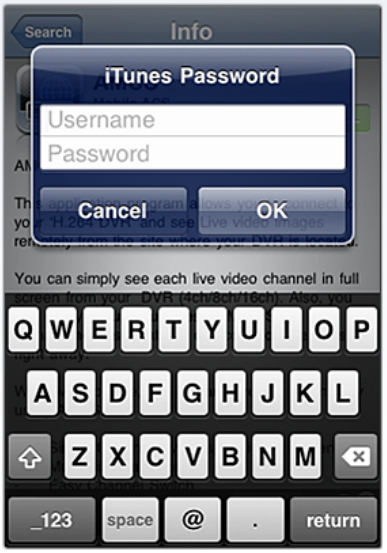
1 Installation Mobile ACS. 2 3 4

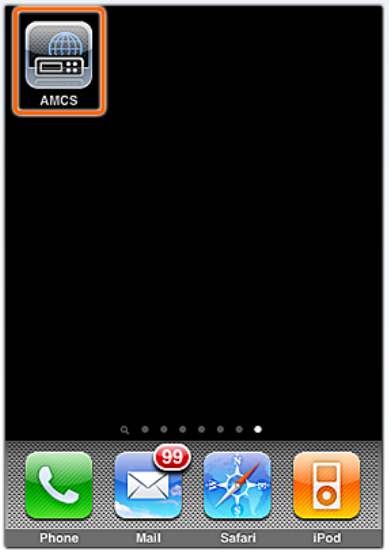
3 Now you can see the detail information about the 'AMCS' application.
Click 'FREE' button then it will change to 'INSTALL' button. Click 'INSTALL' button to proceed.


Search
Info
AMCS
Mobile ACS
8 Ratings
FREE
AMCS
This application program allows you to connect to your 'H.264 DVR' and see Live video images remotely from the site where your DVR is located.
You can simply see each live video channel in full screen from your DVR (4ch/8ch/16ch). Also, you can easily list up your sites by Multi-Site Management, so that you can connect to each site right away.
Wherever you are, see live and protect instantly by using AMCS.
- Single Channel Live Display in full screen
- Multi-Site Management
- Easy Channel Switch
Featured
Categories
Top 25
Search
Updates


Search
Info
AMCS
Mobile ACS
8 Ratings
INSTALL
AMCS
This application program allows you to connect to your 'H.264 DVR' and see Live video images remotely from the site where your DVR is located.
You can simply see each live video channel in full screen from your DVR (4ch/8ch/16ch). Also, you can easily list up your sites by Multi-Site Management, so that you can connect to each site right away.
Wherever you are, see live and protect instantly by using AMCS.
- Single Channel Live Display in full screen
- Multi-Site Management
- Easy Channel Switch
Featured
Categories
Top 25
Search
Updates

4 Input your User ID and Password. Then, you will see the 'AMCS' icon on your iPhone.

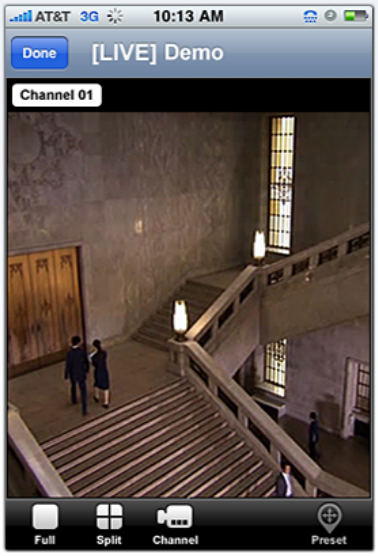




1 2 How to connect and view. 3 4

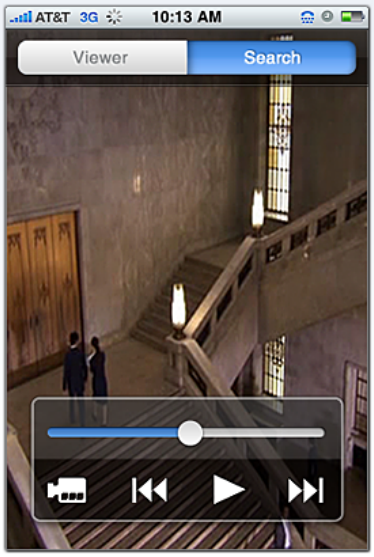
1 Press '+' button and select DVR Type: Normal or Advanced. Then, input the new site information that you would like to connect to. Press 'Save' button to save your settings.

2 Press 'OK' and 'Connect' button to connect. Then, you will see a single channel live view or four split channel live view of the connected site. Press a desired channel button (Ch1~Ch16) or four-split channel mode to view another set of channels.



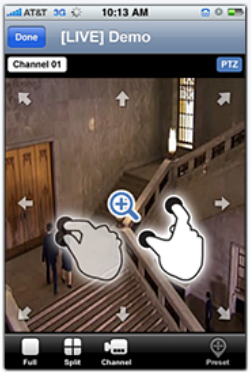
1 2 3 How to search and PTZ control. 4

1 A single channel search is also available. In order to search data of a channel, touch the screen of live view and touch 'Search' tab located on top of the screen. Click channel icon to view another channel in search mode.

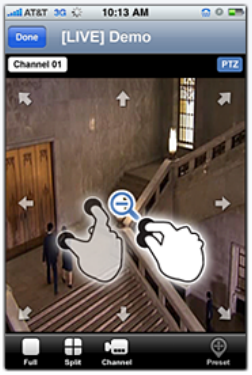


2 A single channel PTZ is simply controlled by using touch screen. First, select a channel, which is a PTZ control camera connected to, for one channel PTZ control in full screen mode.
To move PTZ camera, move your finger tip to the desired direction without losing contact on the screen surface.
In order to Zoom In, touch surface with two fingers and bring them closer together.
In order to zoom out, touch surface with two fingers and move them apart.
In order to move PTZ camera to a preset location, select 'PRESET' tab and select a preset channel no. to move.

PTZ



Zoom In



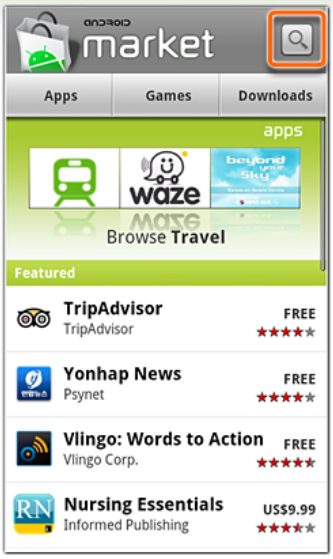
Zoom Out

8.2 Android application software

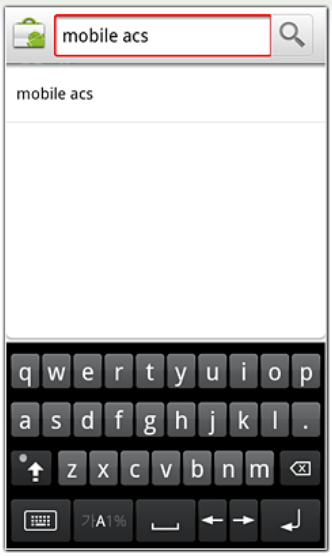
1 How to install Mobile ACS 2 3

1 Press 'Market' icon

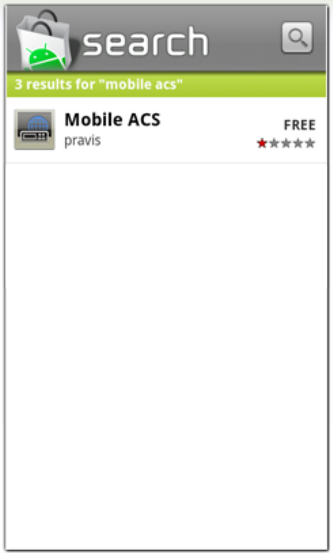
2 Press 'Search' icon

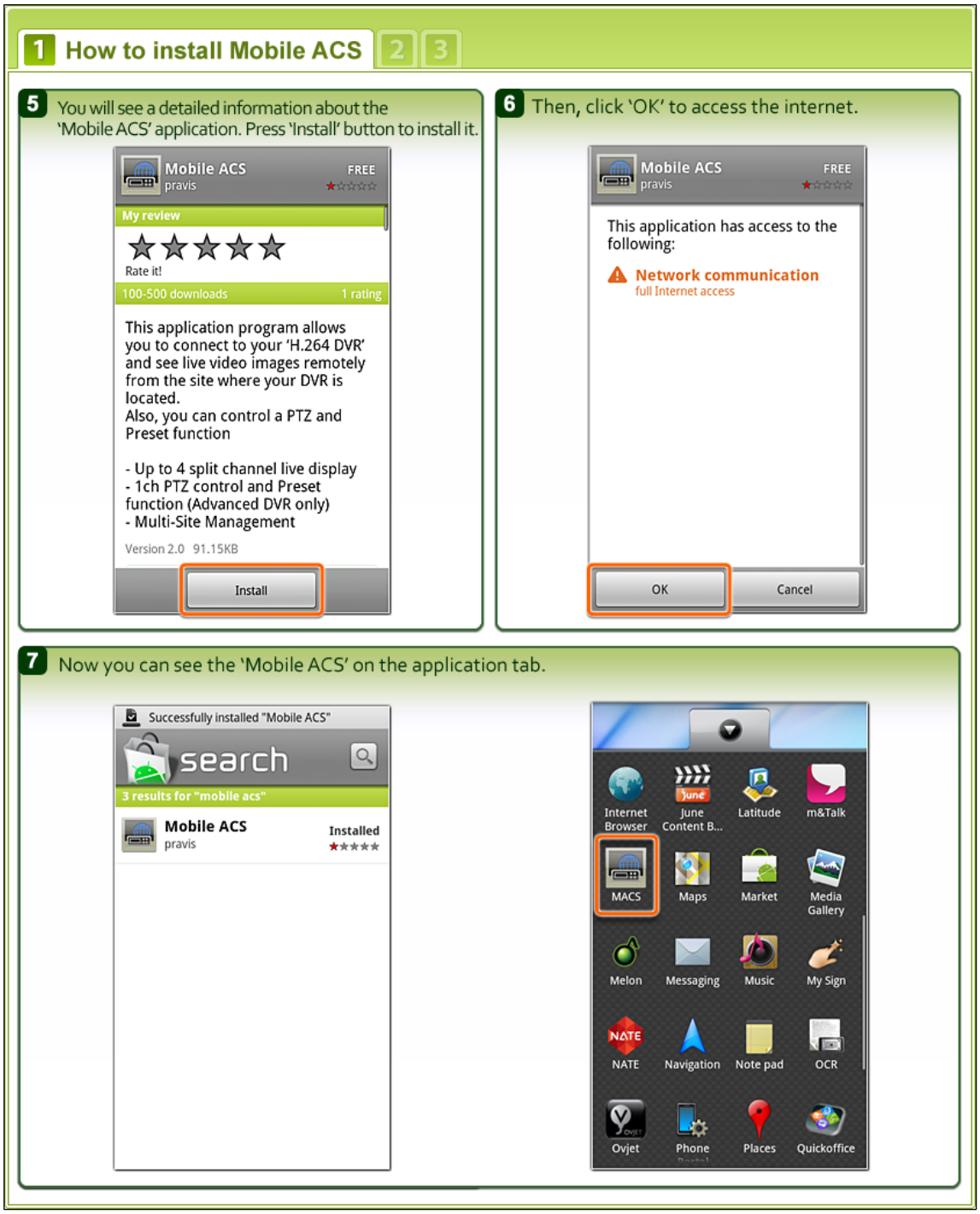


3 Type in 'Mobile ACS' and click 'Search' icon.



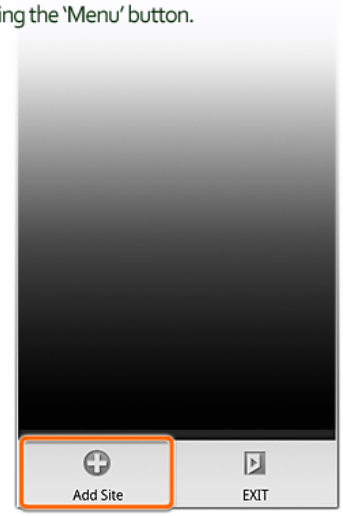
4 Then, you will set the 'Mobile ACS' application icon on the screen as shown below. Select the application.



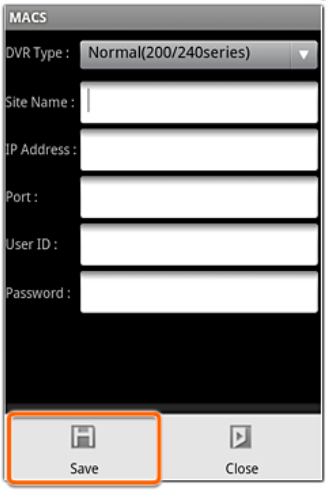

1 How to install Mobile ACS
2
3
5 You will see a detailed information about the 'Mobile ACS' application. Press 'Install' button to install it.
Mobile ACS
pravis
FREE
My review
Rate it!
100-500 downloads
1 rating
This application program allows you to connect to your 'H.264 DVR' and see live video images remotely from the site where your DVR is located.
Also, you can control a PTZ and Preset function
- Up to 4 split channel live display
- 1ch PTZ control and Preset function (Advanced DVR only)
- Multi-Site Management
Version 2.0 91.15KB
Install
6 Then, click 'OK' to access the internet.
Mobile ACS
pravis
FREE
This application has access to the following:
Network communication
full Internet access
OK
Cancel
7 Now you can see the 'Mobile ACS' on the application tab.
Successfully installed "Mobile ACS"
search
3 results for "mobile acs"
Mobile ACS
pravis
Installed
Internet Browser
June Content B...
Latitude
m&Talk
MACS
Maps
Market
Media Gallery
Melon
Messaging
Music
My Sign
NATE
Navigation
Note pad
OCR
Ovjet
Phone
Places
Quickoffice

1 2 How to connect and view 3

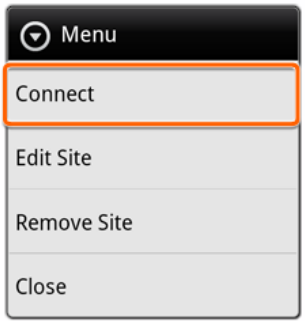
1 After running the application, press 'Menu' button to bring 'Add site' button. Then, press 'Add site' button.
* Please view your phone manual, if you have trouble finding the 'Menu' button.



2 First, select DVR Type: 'Normal' or 'Advanced'. Input the new site information that you would like to connect to. Press 'Menu' button to bring 'Save' button and click 'Save' to save your settings.



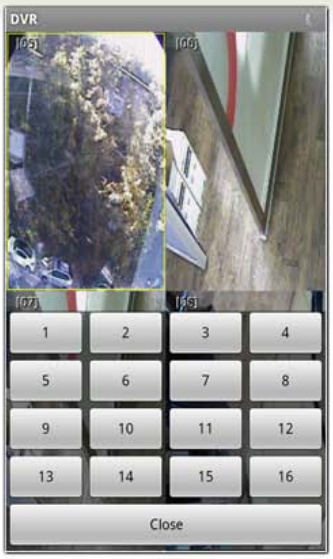
3 Press and hold the desired site in the site list for the connection menu.
Press 'Connect' button to connect.

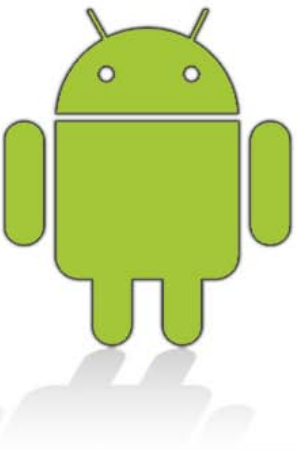


4 You will see a single channel live view or four split channel live view of the connected site. Press a desired channel button (ch1~ch16) or four-split channel mode to view another set of channels.

1 2 How to connect and view 3

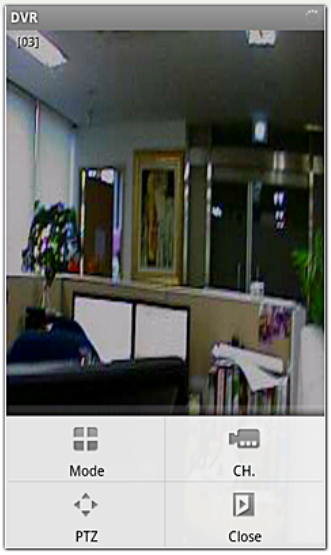
5 Press a desired channel button (ch1~ch16) or four split channel mode to view another channels as shown below.



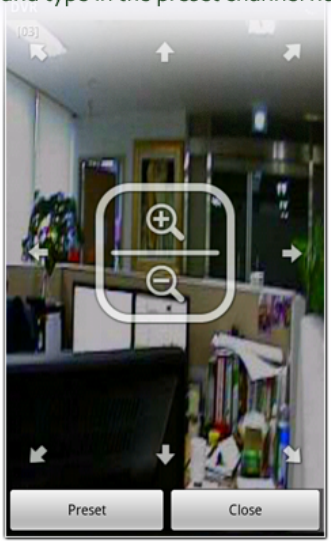


1 2 3 How to control PTZ

1 If the DVR Type is 'Advanced' model, you are able to control PTZ camera. To do so, select a PTZ channel in full screen mode.



2 To move PTZ camera, press the eight directional arrow buttons. In order to zoom in or zoom out, press the 'Zoom In/Zoom Out' icon located in the middle.In order to move PTZ camera to a preset location, press the 'Preset' button and type in the preset channel number.



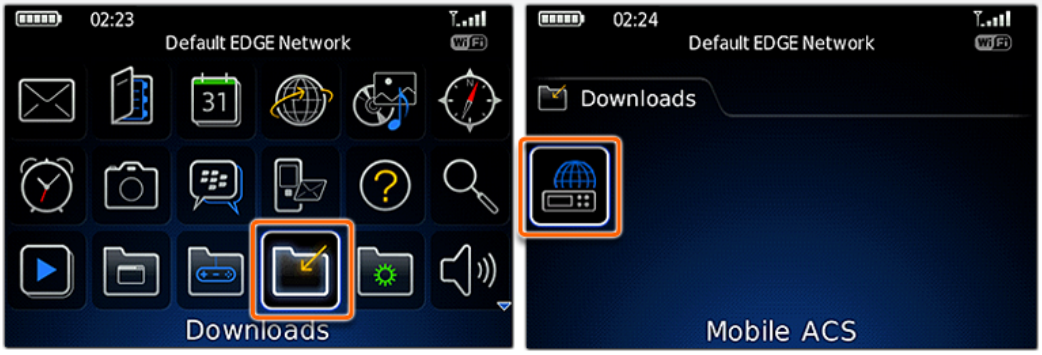
8.3 BlackBerry application software

1 Installation Mobile ACS. 2 3

1 After you unzip the zip folder "StandardMobileACS.ZIP", then you will see two files in there.
Copy these two files to "Downloads" folder in Blackberry.
1) MbileACS.alx
2) MobileACS.cod

Note :
- For more information about how to copy a file to Blackberry, please refer to the Blackberry manual about Blackberry Desktop Manager.

2 Please find 'Downloads' folder in your Blackberry and get into it.

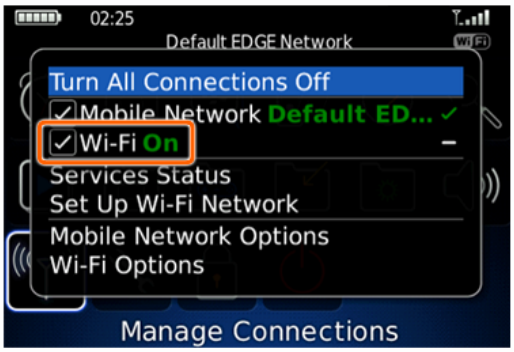


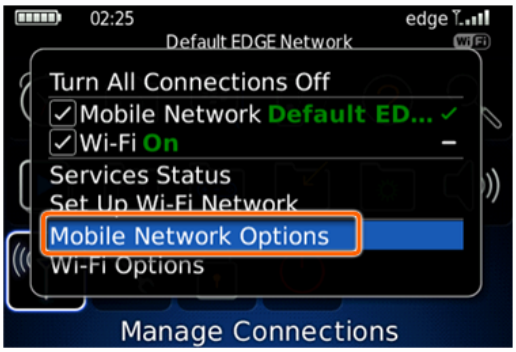
1 2 How to manage connections (Before you start) 3

1 Go to 'Manage Connections' in the Blackberry main menu.

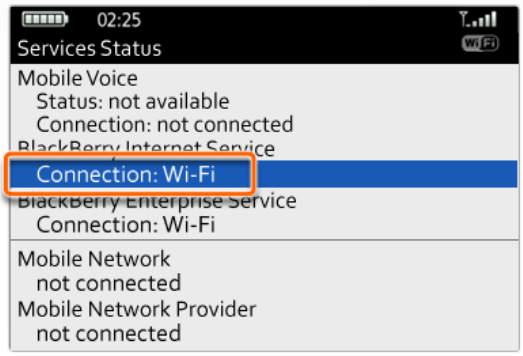
1 2 How to manage connections (Before you start) 3

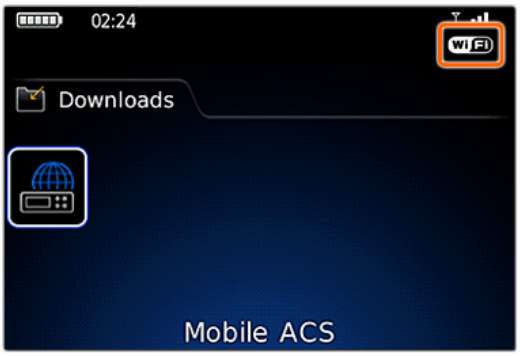
2 Have the 'Wi-Fi' check box is checked first. Then, please go to 'Mobile Network Options'.





3 You will see the Services Status as shown below.
Blackberry Internet Service Connection: Wi-Fi and Wi-Fi Network Information.
Also, you will see 'Wi-Fi' connection icon (Light On) on the upper right corner of the main menu.





1 2 3 How to connect (Get Started)

1 'Site' means the site name that you want to access and 'Ch' means the camera channel that you want to see. For the first time connection, the site name is 'NONE' because there is no added site yet.

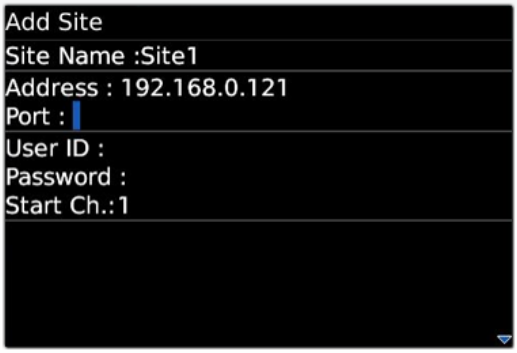
2 In order to add a site, push button and select 'Add Site'.

Note:

- If there is no added site, it only shows you 'Add site' and 'Close' as shown on the left.
  If there is any added site, you will see 'Connect', 'Add Site', 'Modify Site', and 'Remove Site' in the menu as shown on the right.

1 2 3 How to connect (Get Started)

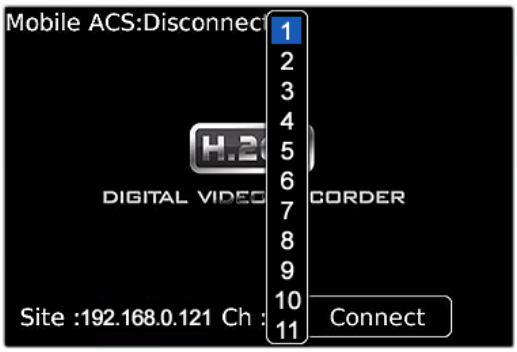
3 Once you click 'Add Site', the network information window will show up. Then, please input your network information in the each section



Note:

- Site Name: The name of the site that you want to see. (You can name it as you want.)
- Address: The IP address of the site that you want to connect with.
- Port: The Mobile Port number of the site.
- User ID: The User ID of the DVR, which has been registered in the DVR already.
- Password: The User Password of the User ID of the DVR

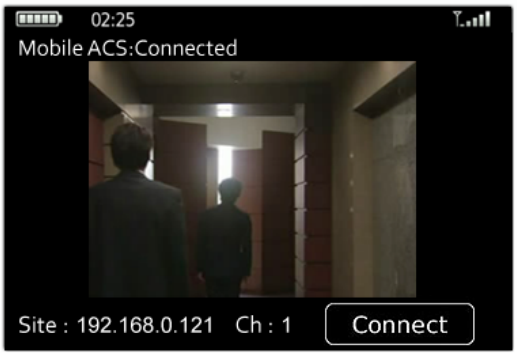
4 Now it's time to connect to your DVR. Move track ball key to select a site and channel number. Press track ball key or Enter key to connect. Plus, you may connect by pressing menu key and select 'Connect' to connect.



1 2 3 How to connect (Get Started)

5 If you want to change the channel while you are connected, move the track ball key and select the 'Ch' button. And then, press the track ball key or press Enter key to see the channel list. Choose another channel that you want to see.

6 Now you can see the channel of the site that you selected. Once you get connected, the 'Connect' button in the menu changes to 'Disconnect'.
In order to disconnect, move the track ball key to select 'Disconnect' button and press the track ball key or press Enter key to disconnect.



8.4 Using WAP+3G Connection

1 In case of using WAP, 3G Connection

1 First, you need to check out 'WEB PORT' of your DVR, because WAP Base Connection method is mainly based on the Mobile Web Service through the 'WEB PORT'. [Default setting is 80]

2 Type your connection URL in the Internet Browser in your Blackberry.
The URL type should be one of the following two URL types.

http://Your_IP_Information/mobile/ [OR] http://Your_IP_Information/mobile/index.html

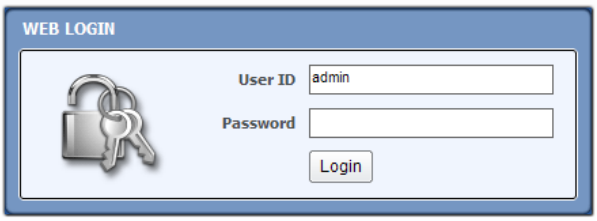
i.e) http://72.243.193.204/mobile/ [OR] http://72.243.193.204/mobile/index.html

Note:
- You may need to input 'index.html' at the end of your URL depending on your Web Browser Property. Therefore, please try both URL types.

3 If the 'WEB PORT' of your DVR is not '80', but other port number, for example, '8088', then you need to type '8088' at the end of the URL.

i.e) http://72.243.193.204:8088/mobile/ [OR] http://72.243.193.204:8088/mobile/index.html

4 When the connection is successful, you can see the below windows.
Please type in User ID and Password. The default setting is admin(User ID) and No password like below.



1 In case of using WAP, 3G Connection

Note:

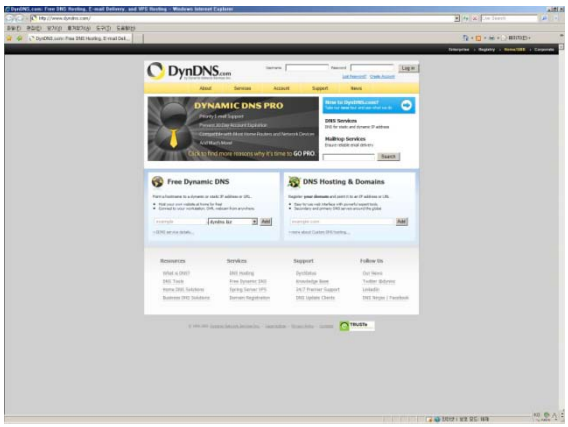
- When connection established successfully, the JPEG image will be refreshing 1 image per about 5 seconds automatically.

* There is a refresh bar at the bottom of Blackberry screen.

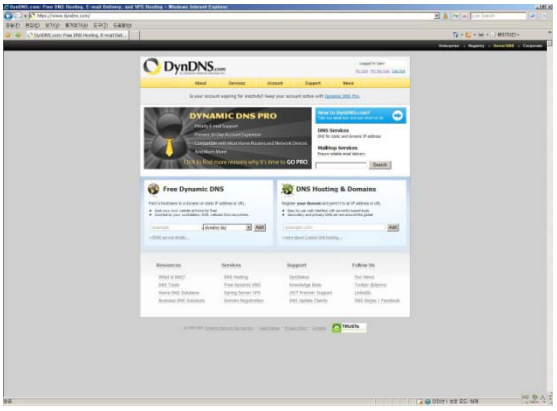
- The image resolution is fixed to 320x240(NTSC) / 320x288(PAL) regardless of the recording resolution settings of your DVR.

APPENDIX : DYNDNS SITE REGISTRATION

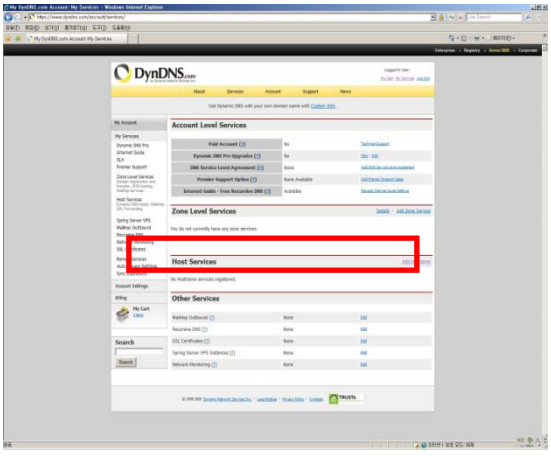
1) Go to www.dyndns.com



2) Log in to the Site after registration

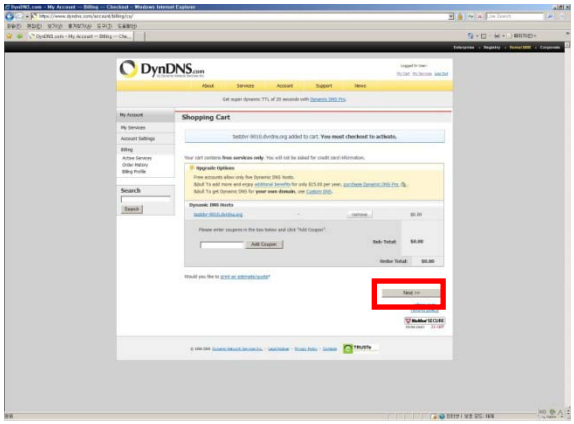


3) Click " Add Hostname" button on "Host Services"

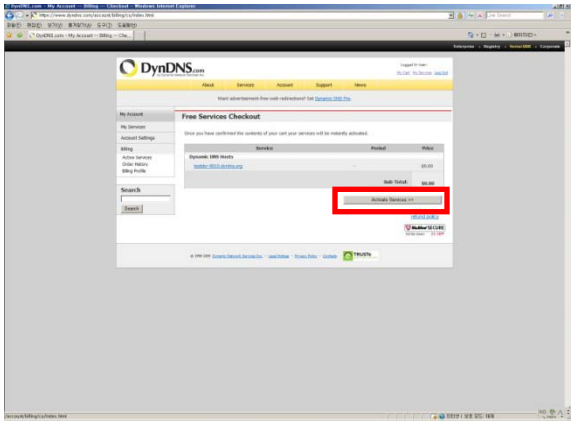


4) Put in the IP address and Host name on the blank

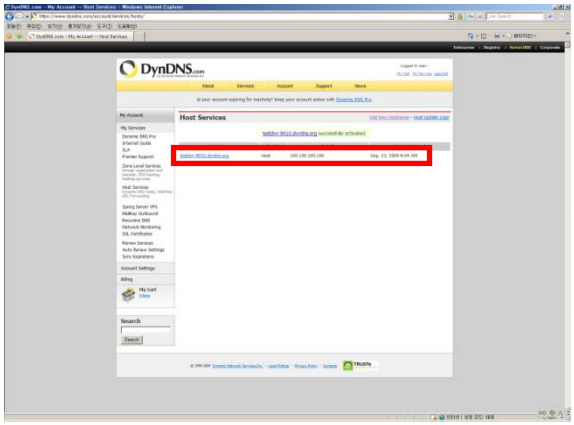
5) Click “NEXT” Button



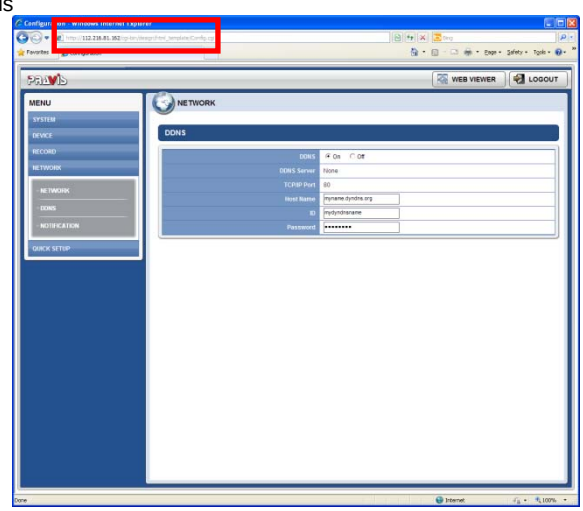
6) Click “Activate Services” button

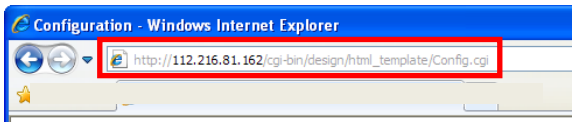


7) Confirm the domain name and IP address



8) Check the connection status





- **Tip**

1. It may take a little time to be completely done for DNS deployment after changed sub domain.
2. Please recheck DVR's IP address registered in the My Service Menu, if you can't access DVR using dyndns.
3. If you are using dyndns to change the IP address for the DVR to the update request, dyndns update by the circumstances that may be late.
4. Dyndns domain is registered by the policy. If the update occurs frequently, it may be blocking.
   Please recheck DVR's service status registered in the My Service Menu, if you don't access dyndns.
5. If you don't access dyndns for a long time, domain will be deleted automatically.
   To prevent this, please access it regularly, or you will have to pay for it again.
   For more information, please contact to dyndns directly

APPENDIX : SPECIFICATION

MODEL		4CH Compact Case	4/8/16CH with DVD±RW
Photo			
Compression Algorithm		Video : H.264, Audio : G723.1	
HDD		1ea x SATA	2ea x SATA
		MAX. 2TB HDD	MAX. 4TB HDD (2TB X 2EA)
OS		Embedded Linux	
Video	Input	4CH	4/8/16CH
	Looping	N/A	Option: D-sub (by piggy tails)
Video Mode		NTSC / PAL Auto Detection	
Display Speed (NTSC/ PAL)		120/100 fps	4CH: 120/100 fps 8CH: 240/200 fps 16CH: 480/400 fps
Screen Split		1,4 & PIP	4CH: 1,4 & PIP 8CH: 1,4,9 & PIP 16CH: 1,4,9,16 & PIP
Video-Out	Monitor	2ea x Main Monitor (Composite & VGA), 1 x Spot Monitor (Composite)	2ea x Main Monitor (Composite,VGA & HDMI), 1 x Spot Monitor (Composite)
Recording Speed (NTSC/PAL)	352x240/288 (CIF)	120/100 fps	4CH: 120/100 fps 8CH: 240/200 fps 16CH: 480/400 fps
	720x240/288 (2CIF)	120/100 fps	4CH: 120/100 fps 8CH: 240/200 fps 16CH: 240/200 fps
	720x480/576 (4CIF)	120/100 fps	4CH: 120/100 fps 8CH: 120/100 fps 16CH: 120/100 fps
Recording Resolution		NTSC : 352x240, 720x240, 720x480 / PAL : 352x288, 720x288, 720x576	
Recording Modes	Recording Profile	Two recording profiles	
	Event Recording	Normal Recording Setup & Event Recording Setup Separately	
	Recording Type	Continuous(C), Alarm(A), Motion(M), C+M, C+A, C+M+A	
	Pre-Post Alarm	Pre & Post Alarm Recording / Pre-alarm (5 seconds)	
	Panic Recording	Panic Recording Setup Separately (FPS, Resolution, Quality)	

MODEL		4CH Compact Case	4/8/16CH with DVD±RW
Playback & Search	Speed	x1, x2, x4, x8, x16, x32	
	Function	1,4 Ch (Multi-Channel Playback)	4CH: 1,4 Ch 8CH: 1, 4, 9 Ch 16CH: 1, 4,9 &16 Ch (Multi-Channel Playback)
		Time Bar Search, Calendar (Date & Time), Event Search, System Log Search	
Audio Input / Output		1ea Input / 1ea Output	4ea Input / 1ea Output
MIC Input		N/A	1ea MIC Input
Alarm Input / Relay Output		4ea / 1ea Relay	4/8/16ea / 1ea Relay / 1ea TTL
P/T/Z Control and Port		Virtual Joy-Stick Control on screen (by mouse)	Virtual Joy-Stick Control on screen (by mouse)
		RS-485 Port (1ea)	RS-485 Port (2ea)
LAN		10/100 Base-Tx Ethernet (RJ45) – Fixed IP, DHCP, DDNS, Auto IP and UPnP Support	
Network		Dual Stream (Local recording & Network Transmission)	
		Live Monitoring, Remote Playback and File Backup (Triplex-on-Remote)	
		Remote & E-Mail Notification, Remote System Reboot by IE	
Mobile Device support		iPhone(4 split live view, 1 Search, 1 PTZ), Blackberry, Android, 3G mobile	
		Mobile Notification on Alarm (iPhone)	
Remote PTZ Control		Pan/Tilt/Zoom/Focus/Iris	
Remote Management	Software	Client S/W, CMS(128ch), MAC Software	
	Web (IE)	Live Monitoring, Playback & System Configuration	
Backup Device	Internal	N/A (No DVD available)	Built-In DVD (Option)
	External	Local Backup by USB Memory Stick (2ea), & Network Backup by CMS	
Advanced Functions		Multi-Language, System Upgrade by USB & Network (Client S/W, FTP), Help Menu on Major Functions, Call Monitor	
		Configuration Import & Export, AVI File Backup (Client S/W)	
		Warning Alarm for System Over-Temperature	
		Covert Setup for Live & Playback respectively	
		Audio Volume control	
		Multi-Preset on Alarm (1:Multi)	
System Operation		Front Button, IR Remote Controller (Included), USB Mouse (Included)	
Power		12V x 3.33A D/C	12V x 6.67A D/C
Storage Temperature and Humidity		-20~60 ℃ / 20~95% RH	
Operating Temperature and Humidity		5~40 ℃ / 20~80% RH	
Certification		CE & FCC & MIC & WEEE, RoHS	

NOTE The specifications are subject to change without notice